SEPTEMBER 2011

SOUTHERN MAINE
REGIONAL TRANSIT COORDINATION STUDY

FINAL REPORT

Prepared by:

Main Street Connections

Transportation Consultants

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FORWARD

By
Main Street Connections

Main Street Connections in cooperation with the Greater Portland Council of Governments (GPCOG), South Portland Bus Service (SPBS), Shuttlebus-ZOOM, the Regional Transportation Program (RTP), and the York County Community Action Corporation (YCCAC), presents an analysis of maintenance activities, and to an extent dispatch activities and the direct costs incurred in the performance of those activities for the purposes of seeking efficient coordinated alternatives to reduce overall cost and improve service.

There are costs associated with administering these functions and this report presents a frame-work for analysis of these costs and uses that framework to assess alternative options and their potential benefits. The analysis will be helpful to participating agencies, including the GPCOG, supporting stakeholders, and other responsible agencies and policy makers concerned with system improvements that can utilize resources and infrastructure more efficiently.

The current system for generating subsidies and revenues in support of program, and program related requirements include, but are not limited to: federal-aid, state-aid, local municipal funding partners, local businesses, and farebox revenue.

There are specific costs associated with administering the maintenance and dispatch activities including: Management salaries, wages, and fringe; maintenance and dispatch salaries, wages, and fringe; facility expenses, utilities, parts and supplies, equipment and rolling stock; and contracted services. These costs are incurred by multiple agencies and recorded and presented many different ways from one agency to another. Understanding and comparing costs among agencies is challenging.

Various alternative options are being considered as a result of multi-agency collaboration, increased levels of outsourcing, and reorganization of existing practices. Such ideas include new construction, rental or lease options, outsourcing of all maintenance practices, shared use technologies, vehicle staging alternatives, and cost sharing methodologies to offer each agency their own pattern of costs that promote fair and equitable distribution of expenses.

This report is the product of research undertaken to provide information to support discussions by and between participating agencies, elected officials, and other policy and decision makers associated with the Southern Maine Regional Transit Coordination Study.

The objective was to develop a methodology that can be used to analyze and compare a selected set of alternative means of administering and delivering maintenance and dispatch services. By developing a framework for the analysis the study participants can gain a better understanding of the possibilities and limitations of potential actions of a shared maintenance facility.

TABLE OF CONTENTS

EXECUTIVE SUMMARY

The purpose of this study is to provide consolidated maintenance guidance through an overall assessment and cost/benefit analysis for the "Portland Area Comprehensive Transportation System (PACTS) in Maine. Main Street Connections will also extend our assessment beyond vehicle maintenance and will also assess current dispatch practices while on site to ascertain commonalities, consolidated opportunities, and cost saving/cost sharing benefits.

In accordance with the principles outlined in the proposal, the guidance will focus on ways to enhance maintenance/dispatch options to the ShuttleBus, South Portland Bus Service (SPBS), the Regional Transportation Program (RTP), and York County Community Action Corporation (YCCAC). To be useful, recommendations must address issues related to planning, operations, finance, organization and management, and governance.

The study focus will include:

- Transit Development and Consolidation Opportunities.
- Fostering of partnerships between agencies already providing transportation.
- Options and opportunities for Shared Services.
- Collaboration and Coordination with existing steering committees.
- Identify Maintenance, Dispatch, and Cost Sharing Opportunities.
- Identifying additional viable program revenues and subsidies to offset local tax dollars.
- Maintaining or enhancing existing services to accommodate current and future needs.

The goal of this technical memorandum is to recommend service plan alternatives that will assist in providing cost effective and efficient maintenance and dispatch options to the associated agencies. The memorandum will focus on finding efficiencies in program administration, maintenance, and dispatch practices through collaborations, consolidation, and coordination between all agencies within the study group.

Therefore the creation of efficient and cost effective services will rely on true coordination of new and existing vehicle maintenance services, cost sharing arrangements, technological resources, and unified collaboration between ShuttleBus, South Portland Bus Service (SPBS), the Regional Transportation Program (RTP), and York County Community Action Corporation (YCCAC) and the many peripheral stakeholders having a vested interest in its success.

It is the strategy of Main Street Connections to provide quality and cost effective transportation alternatives for those vital services designed to enhance health, independence and self-sufficiency for all transit riders alike. These strategies will be provided through extensive knowledge of the Public Transportation and Human and Social Service Industries, knowledge of applicable Information Technology (IT) and Intelligent Transportation System (ITS) management technologies, knowledge of the programs and funding resources of the Federal Transit Administration (FTA), recognized industry barriers and territorial concerns, and years of multi-agency mobility coordination.

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CHAPTER I

REVIEW OF PREVIOUS TRANSIT DOCUMENTS, STUDIES AND REPORTS

REVIEW OF PREVIOUS TRANSIT DOCUMENTS, STUDIES AND REPORTS

As a component of the background investigation, previous relevant studies were reviewed to recognize the past and present transit maintenance issues in the Southern Maine region. The following are studies reviewed by Main Street Connections:

- PACTS Regional Transit Coordination Study;
- South Portland/Saco Bay Study;
- Portland Peninsula Study;
- Regional Transportation Program (RTP) Region 6, Biennial Operations Plan;
- Shuttlebus-ZOOM Region 8, Biennial Operations Plan;
- South Portland Bus Service (SPBS) Expense Report
- Strategic Planning Buildings Assessment
- York County Community Action Corporation (YCCAC)

PACTS Regional Transit Coordination Study

This study focused on the coordination of services to increase public benefit and relevance of transit services. Focusing on the four C's (communicate, coordinate, collaborate, and consolidate). This studies main objective was to identify efficiencies in route, cost, frequency, and quality through the coordination of services. Among the recommendations were the considerations of development of a possible regional authority of 7 providers, regional planning components, cost control through coordination, improve marketing practices, and exploration of shared maintenance opportunities to name a few.

Existing maintenance collaboration and needs identified included:

1. Shuttlebus – Currently maintains YCCAC & municipal vehicles
2. METRO – Maintains some of RTP fleet
3. Shuttlebus/South Portland Bus – Needs include facility improvements
4. METRO/RTP – Needs include bigger facilities
5. Portland/S. Portland/Westbrook – Looking to collaborate on construction

Concerns of coordination and consolidation included: Independence/Local Control, Labor issues, Operational and Fiscal Control.

South Portland/Saco Bay Study

This study addresses route assessment through re-alignment, deviations, and alternative headway recommendations with little focus on maintenance. What could be ascertained from this study was that the levels of transit services seem difficult to maintain due to the age of the current vehicle fleets, and as needs continue to grow, and with the lack of newer buses, utilizing the peak and allowable fleets to maintain current service levels will make regular routine Preventative Maintenance (PM) difficult. Therefore, recommendations of this study would indicate that implementation of route efficiencies and route restructuring can possibly lead to allowing more frequent PM rotation of vehicles to help control major maintenance costs that a PM program can catch early.

Portland Peninsula Study

This basic premise of this study was to offer routing alternatives in the City of Portland based on past traffic studies. Roadway impacts and traffic growth finding of past studies moved for recommendations of ways to ease congestion, enhance transit, and promote walk-able and bike-able communities. Some recommendations that came from this study included the development of a sustainable transportation fund, development of a transportation improvements program, establish a funding resource that benefits RTP & South Portland Bus, and encourage coordination. While shared maintenance was not a front line topic of this study the very principals of coordination are built upon shared services of which maintenance can play an important role. Following the recommendations of this study should have positive peripheral benefits on maintenance costs of participating partners.

Regional Transportation Program (RTP) Region 6, Biennial Operations Plan (BOP)

The Biennial Operations Plan (BOP) is an assessment of current services, operations, and pending budgets, similar to an annual report and budgeting process. The BOP provided fleet inventories and infrastructure, service areas, and some narratives on coordination efforts. Modest assessments of building configurations, maintenance expenses, and personnel could be derived from the contents. The breakout is thin on cost and inventory and will require more detail be leveraged for a comprehensive shared maintenance assessment**.**

Shuttlebus-ZOOM Region 8, Biennial Operations Plan

As with the BOP for the Regional Transportation Program (RTP) above, this assessment is identical in providing current services, operations, and pending budgets. As with the Regional Transportation Program's BOP, this report is thin on cost and inventory breakout and will require more detail for a comprehensive shared maintenance assessment**.**

South Portland Bus Service (SPBS) Expense Report

The South Portland Bus Service (SPBS) Expense Report is an operational and financial assessment of SPBS services. The report provides an overview of such criteria as fleet makeup, ridership, infrastructure, and personnel. An assessment of transit facility spacial needs for administration and maintenance services was provided in the basic sense from a short and long term standpoint, but much more detail will need to be gathered. An A/E Study identified an alternative for shared services with Parks, public works, and transit that might offer some benefit to the overall study. Maintenance expenses were not broken out requiring more detail in order to be leveraged. Point of fact was the apparent availability of $570,000 in State Transportation Program funds (STP) in 2012; an application process through PACTS would have to take place. Other funding sources identified were the Tax Increment Fund (TIF), for transit oriented development, and the Transit Bonus Program, an increased transit incentive that seems to have use limitation like peripheral improvements for roads.

Strategic Planning Buildings Assessment

This assessment, also part of South Portland Bus Service is for the demolishing or renovation of the existing Bus Office and Bus Garage and replaces it with a centralized structure containing both administrative and maintenance functionality. Inside storage and future expansion opportunities are design standards the assessment points out as needs. Minor rehabilitation

efforts have been inadequate and current deterioration will lead to a continual increasing of expenses as years go on.

Options for integration with Parks, Public Works, and Bus Service facilities were recommended and project space needs totaled approximately 9500 square feet for maintenance, and approximately 1100 square feet for office space. A butler building was also assessed at a cost of $110 per square foot and approaching costs of $1.2 million.

York County Community Action Corporation (YCCAC)

The York County Community Action Corporation (YCCAC) documentation consisted of fleet inventory, service routes, and programs services. YCCAC operates several care programs such as Head Start, WIC, Energy, Housing, Transportation, and Health Care. They currently maintain their fleet through a maintenance contract with Shuttlebus-ZOOM. No detail was available on building schematic and number of personnel, nor could a breakout of maintenance expenses be determined from existing documentation.

Additional Observations

Land use Goals
Proactive land use strategies to maintain program integrity is periodically identified in studies and reports that can benefit existing agencies and promote regional growth but sources of funding to implement strategies are not prevalent.

Fleet Age
A high percentage of the existing fleet is at or exceeded their useful life standards, and agency spare factor is also excessive for the usual 20% allowable. This indicates vehicle expenses such as insurance, registration, and gas consumption is higher then necessary. It further indicates maintenance costs of an aging fleet such as identified are also disproportionate and causing inflated maintenance expenses.

Fleet Variance
Fleet inventory shows many variations in make and model that would indicate a need to carry an unusually high part inventory, and also require maintenance staff to have a wide range of experience with multiple vehicle makes.

Explore Partnerships

Providing shared services and the participation in efforts to secure additional funding from State and Federal sources for other local agencies that provide transportation is prevalent in many of the past studies. This principle can lend to cost saving on all levels of service including maintenance costs.

Several action items offered to enhance transit in the region include:
• Close the gap between funding needs and available funding levels
• Improve efforts to leverage federal dollars
• Allow greater flexibility for local jurisdictions to generate funds
• Increase state funding for transit
• Engage non-traditional partners

- Increase coordination among providers
- Expand transit service
- Coordinate land use and transportation decisions

Findings

Although the review of past studies does not include specific vehicle maintenance strategies, they support the need for general transit coordination and investment in infrastructure throughout the region. This can lead to more efficient and effective services whose by-product is subsequently more prudent use of equipment and resources which result in fiscally responsible benefits.

Transit is recognized as a prominent component of the future regional transportation network, but viable options in the foreseeable future for transit is limited due to lack of financial stability and reliable equipment.

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CHAPTER II

EXISTING CONDITIONS

I - BACKGROUND

This study was initiated by the Greater Portland Council of Governments (GPCOG) for the Portland Area Comprehensive Transportation System (PACTS) in cooperation with the Regional Transportation Program (RTP), The York County Community Action Corporation (YCCAC), Shuttlebus-Zoom, and the South Portland Bus Service (SPBS) to explore the opportunities for coordinating maintenance between the agencies, including the possibility of consolidating services within a centrally located regional maintenance facility. An inventory and assessment of existing dispatch and communications processes will also be performed during the studies duration. The firm of Main Street Connections was hired to explore maintenance and dispatch options for the transportation providers in the Southern Maine Region. This initial report will define and outline the "Existing Conditions" of all agencies with respect to their maintenance facilities, fleet, and inventory and equipment as of the date of this report.

II - AGENCY INTRODUCTIONS

ShuttleBus-ZOOM

The ShuttleBus facility is located at 13 Pomerleau Street in Biddeford Maine, approximately 18 miles southwest of the city of Portland Maine. Shuttlebus provides both local service from Biddeford to Old Orchard Beach, and Saco as well as express commuter service to Portland Maine. Shuttlebus staff includes three full time mechanics, two part time personnel, a fleet manager, executive assistant, and the executive director. The Shuttlebus fleet consists of a total of seventeen (17) vehicles and one (1) service vehicle. The fleet is made up of eight less than 30 foot buses, five 30 foot buses, and four 35 foot buses for commuter service. The vehicles range in age from 2000 to 2010. The maintenance facility is approximately 30 years old, and is in fair condition. The facility has five maintenance bays, one wash bay, employee lounge and restrooms. Parking for ten employees is located on site. There are four portable lifts in fair condition, no formal bus wash equipment, and a service vehicle with a plow for snow removal.

South Portland Bus Service (SPBS)
Located on 46 O'Neil Street South Portland Maine the bus maintenance facility is part of the municipal public works complex. Built in 1950, both the building and roof are in poor condition. The facility includes three maintenance bays, and one wash bay. The facility lacks amenities such as a kitchen, lounge, restrooms, but has parking for approximately 20 vehicles. Equipment housed within the maintenance facility includes two portable lifts, a hose for bus washing, vehicle maintenance and inventory software by Ron Turley Associates (RTA) and a service vehicle with plow for snow removal. There is a diesel fueling station used by all municipal partners. Parts inventory is limited at this facility due to space constraints. Total number of staff at this facility is three full time employees: Director, Operations supervisor and one full-time mechanic. Bus fleet includes a total of 12 buses; 2 less than thirty foot, 7 thirty foot, and three 35 foot buses, and two service vehicles. SBPS provides fixed route transit service in South Portland and a portion of the Town of Scarborough.

Regional Transportation Program (RTP)
The Regional Transportation Program is located at 127 St. John Street. Portland ME 04102, and currently lease's space in a shared facility with Greater Portland METRO within the City of Portland. RTP is the paratransit provider for METRO and South Portland Bus Service and the Cumberland County provider of brokered services. They occupy 4,269 square feet of office space, and at a separate location on the grounds, 2,531 square feet of maintenance space for maintenance, parts, and inventory. In addition, the parking accommodations total 10,080 square feet, enough to accommodate sheltered housing for their fleet of buses and vans. Also on site is a fueling station shared between the agencies. The facility is 26 years old and in good condition. It contains 2 service bays, 2 maintenance bays, and a wash bay. Accommodations include kitchen, restrooms, and accessible entrances. Equipment within the maintenance facility includes two portable lifts, a walk around bus wash, vehicle maintenance software by RTA, and a fleet of 42 vehicles. Staffing consists of three (3) full time mechanics and twenty two (22) administrative and supporting staff.

York County Community Action Council (YCCAC)
The York County Community Action Corporation maintains administrative offices at 6 Spruce Street, Sanford, Maine, 04073. YCCAC provides paratransit services for Biddeford, Saco, and old Orchard beach. Maintenance of the bus fleet is performed via a third party contract with Shuttlebus-ZOOM. Their participation in this study consists of an assessment of their current outsourcing practices, and the affect that a consolidated recommendation may have on their services and agency budget. As a designated regional provider for York County, the York County Community Action Corporation manages a fleet of 46 vehicles. YCCAC does not currently retain mechanics on staff, which is why they require outsourcing of all maintenance practices for vehicles and equipment.

Town of Scarborough, Public Works Department (DPW)
The Public Works division of the Town of Scarborough is included as a potential centralized location only, and is not part of the study's core group. The DPW is located at 20 Washington Avenue, Scarborough, Maine. The existing building was originally designed to house a lumber company and after negotiations fell through the DPW elected to use the location. Town officials are considering possible collaboration with the studies transit agencies in a shared use arrangement of their facilities. The facility is 24 years old, is in excellent condition and offers expansion opportunities. It contains 11 service and maintenance bays, a wash bay, and other accommodations include a kitchen, restrooms, and parking for 40 vehicles. Equipment within

the maintenance facility includes two lifts, maintenance software by Cititech Management System, and a fueling station with diesel, gas, propane, and natural gas expansion possibilities. Staffing consists of eight (8) full time mechanics with full maintenance capability.

III - EXISTING INVENTORY ASSESSMENT

As one of the outcomes of the Southern Maine Regional Transit Coordination Study, the existing inventory of each agencies facility and fleet are to be documented providing a snapshot of existing conditions within the service areas today.

On the following pages is a compilation of data and information collected by Main Street Connections in cooperation with the Greater Portland Council of Governments (GPCOG), South Portland Bus Service (SPBS), Shuttlebus-ZOOM, the Regional Transportation Program (RTP), the York County Community Action Corporation (YCCAC), and the Town of Scarborough's Department of Public Works.

The inventory assessment will serve as one of the building blocks for planning where the maintenance recommendations of the Southern Maine Regional Transit Coordination study will lead.

Information has been collected through documentation provided by project stakeholders, first hand observations, and other primary research including the assessment of past studies and related web searches.

The Inventory Assessment is separated out into the following four (4) categories. The first three categories (1-3) assess the inventories of SPBS, Shuttlebus-ZOOM, RTP, and YCCAC. Category four (4) assesses the Town of Scarborough's DPW Facility.

1. Facility Housing and Accommodations
2. Facility Inventory
3. Fleet Inventory
4. Town of Scarborough Facility, Inventory, and Fleet Assessment

Facility Housing and Accommodations																	
	Facility Information			Facility Ownership			Facility Characteristics			Facility Accommodations						Facility Staffing	
Agency	**Office/Maintenance Combined**	**Office Separate**	**Maintenance Separate**	**Property Owned**	**Property Leased**	**Government Property**	**Property Expandable**	**Building Age**	**Building Condition**	**Service Lanes**	**Maintenance Bays**	**Kitchen/Lounge/ Restrooms**	**Parking Accommodations**	**Indoor Vehicle Storage**	**Inventory Storage**	**Maintenance Staff**	**Administrative Staff**
SPBS	0	1	1	0	0	1	Yes	61	Poor	0	3	0	20	8	Yes	1	2
Shuttlebus	1	0	0	0	0	1	No	30+	Poor	0	5	1	12	8	Yes	3	5
RTP	1	0	0	0	1	0	No	26	Good	2	2	1	21	35	Yes	3	22
YCCAC	0	1	1	N/A	N/A	N/A	No	N/A	Good	0	0	0	50	0	0	0	N/A
Totals	**2**	**2**	**2**	**0**	**1**	**2**	**2**	**-**	**-**	**2**	**10**	**2**	**103**	**51**	**-**	**7**	**29**

The Facility Housing and Accommodations Overview is as follows: Four (4) providers maintain six locations containing, twelve (12) maintenance and service bays, accommodations for one hundred (100+) vehicle outdoor storage, fifty (50+) vehicle indoor storage, and staffed by 7 maintenance personnel. Two locations (SPBS & Shuttlebus) are in a state of disrepair and projections are for costly repairs in the near future. RTP has outgrown their facility, and YCCAC has no maintenance options other than outsourcing. A consolidated location can offer economies of scale in both administrative and maintenance costs.

Facility Inventory															
	Facility Equipment										Software		PM Programs		Fueling	
Agency	**Lifts**	**Pits**	**Bridge Crane**	**Welding Equipment**	**Overhead Doors**	**Hydraulic Equipment**	**Snow Removal Equipment**	**Generators**	**Diagnostic Equipment**	**Eye Wash Station**	**Maintenance Software**	**Inventory Software**	**Preventative Maintenance Program**	**Facility Maintenance Program**	**Fueling Station**	**Fuel Type**
SPBS	1	0	0	0	8	0	1	1	1	1	1	1	1	0	1	D
Shuttlebus	1	0	0	1	5	0	1	1	1	1	1	1	1	0	1	D
RTP	2	0	0	1	5	1	0	0	1	1	1	0	1	0	1	G
YCCAC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	None
Totals	**4**	**1**	**0**	**2**	**18**	**1**	**2**	**2**	**3**	**3**	**3**	**2**	**3**	**0**	**3**	

Facility Inventory Overview: The four (4) providers within their six locations are performing similar maintenance services; have duplicative shop and diagnostic equipment, maintain multiple fueling stations, and have varying preventative maintenance programs. Current equipment is aging, and replacement equipment is not readily available in the near future. This will cause further duplicative purchases over the short term, where if a consolidated effort was to take place these duplicative purchases could be avoided or lessened, alleviating some financial duress. Other efficiencies that could be realized are in the coordination and updating of both Preventative and Facility Maintenance Programs that currently are suspect in design and effectiveness.

Fleet Inventory																	
	Bus Fleet												Trolley Fleet		Other Vehicles		
Agency	**12 Passenger**	**16 Passenger**	**18 Passenger**	**24 Passenger**	**28 Passenger**	**31 Passenger**	**32 Passenger**	**33 Passenger**	**35 Passenger**	**37 Passenger**	**39 Passenger**	**45 Passenger**	**25 Passenger**	**31 Passenger**	**Up to15 Passenger**	**Service Vehicle**	**Totals**
SPBS*				2		7	3										**12**
Shuttlebus					4	4		2	1	1	1	1		6		1	**21**
RTP		3	6												28	1	**38**
YCCAC			6	23									3		8		**40**
Totals	0	3	12	25	4	11	3	2	1	1	1	1	3	6	36	2	**111**

The Inventory Overview is as follows: Four (4) providers maintain one-hundred and seventeen (111) vehicles for the most part, purchased from a state contract. Fleet age ranges from: 3 (2011), 24 (2005-2010), 39 (2000-2005), 38 (1995-2000), 10 (1990-1995), 2 (1985-1990), 1 (1981). Forty-four percent (44%) of the fleet is at or exceeds 10 years of age. Seventy-three percent (73%) of the fleet is at or will meet its useful life standards over the next two years. Costs to maintain these existing fleets in operational condition will be high. Some providers maintain fleets beyond the federally recommended 20% spare factor in order to account for unexpected breakdown. Fleet replacement will achieve natural savings in repair costs, and savings associated with allowable fleet reductions such as: insurance, registration, and local match. Other savings from efficiencies of consolidation are possible through route collaboration.

* SPBS is waiting on a statewide fleet allocation at the time of this draft, with some vehicles pending disposal.

Town of Scarborough Facility, Inventory, and Fleet Assessment

Housing and Accommodations	Facility Information			Facility Ownership			Facility Characteristics			Facility Accommodations						Facility Staffing	
Agency	Office/Maintenance Combined	Office Separate	Maintenance Separate	Property Owned	Property Leased	Government Property	Property Expandable	Building Age	Building Condition	Service Lanes	Maintenance Bays	Kitchen/Lounge/ Restrooms	Parking Accommodations	Indoor Vehicle Storage	Inventory Storage	Maintenance Staff	Administrative Staff
Scarborough	1	0	0	0	0	1	Yes	24	Good	6	5	1	40	20	Yes	8	N/A

Facility Inventory	Facility Equipment										Software		PM Programs		Fueling	
Agency	Lifts	Pits	Bridge Crane	Welding Equipment	Overhead Doors	Hydraulic Equipment	Snow Removal Equipment	Generators	Diagnostic Equipment	Eye Wash Station	Maintenance Software	Inventory Software	Preventative Maintenance Program	Facility Maintenance Program	Fueling Station	Fuel Type
Scarborough	2	0	1	1	6	1	1	1	1	1	1	1	1	0	1	D,P,G

The Town of Scarborough's Public Works Department is assessed as a part of the study only for purposes of a possible re-location for existing operators administrative and maintenance functions. If considered feasible operations as a joint use facility may offer cost saving benefits through realized efficiencies in maintenance and service delivery. The facility is currently under utilized and offers possible turn key options initially and expansion opportunities as deemed necessary.

IV - MAINTENANCE EXPENSE ASSESSMENT

A Maintenance Expense Assessment is the evaluation of past, current, and projected future maintenance expenses of the Southern Maine Study Partners. Their need for cost savings measures across current maintenance practices is the premise of this section.

Evaluated both on an individual basis and as a group the assessment can help begin to identify duplication costs, fixed costs, current cost trends, and possible efficiencies that can be achieved in a cooperative effort.

The following pages offer a view of all agency expenses, both individually and the total among the agency's for better identification of specific trends. An agency assessment of visible duplicative and fixed costs will be assessed in the existing condition as well:

- *Exhibit A - Southern Maine Agency Total Expenses*
- *Exhibit B - Shuttlebus-ZOOM*
- *Exhibit C – South Portland Bus Service*
- *Exhibit D – Regional Transportation Program*
- *Exhibit E – York County Community Action Corporation*
- *Agency specific narratives*
- *Conclusion*

Exhibit A

FACILITY & MAINTENANCE EXPENSES

Version 1.1

Enter System Name Below

Southern Maine Agency Total Expenses

INSTRUCTIONS

Fill in all "Non-Shaded" boxes with Applicable Maintenance Expenses

	EXPENSES ITEMS	2009 ACTUAL EXPENSES	% CHANGE	2010 ACTUAL EXPENSES	% CHANGE	2011 BUDGET EXPENSES
Salaries & Wages	**SALARIES AND WAGES**					
	Management Salaries (Applicable to Maintenance Functions Only)	$69,485	0%	$69,229	0%	$69,306
	Staff Maintenance Salaries (Mechanics and Technicians)	$388,013	-4%	$372,890	1%	$375,733
	Total Maintenance Salaries & Wages	$457,498	-3%	$442,119	1%	$445,039
	Fringe Benefits	$67,680	3%	$69,468	2%	$70,945
	Total Maintenance Salaries, Wages, and Fringe	$525,178	-3%	$511,587	1%	$515,984
Utilities	**UTILITIES**					
	Phone	$37,165	13%	$42,104	1%	$42,540
	Electric	$32,500	-15%	$27,627	24%	$34,300
	Heat	$26,205	-20%	$20,870	57%	$32,846
	Internet	$5,250	-18%	$4,300	28%	$5,500
	Other	$4,868	8%	$5,263	9%	$5,736
	Total Utilities	$105,988	-5%	$100,164	21%	$120,922
Facility Expenses	**FACILITY EXPENSE**					
	Facility Mortgage/Rent/Lease	$36,585	9%	$39,902	7%	$42,750
	Facility Insurance	$6,042	-1%	$5,972	12%	$6,700
	Heating, Ventilation, and Air Conditioning (HVAC) Servicing	$8,823	-4%	$8,511	-12%	$7,512
	Electrical and Plumbing Servicing	$7,065	10%	$7,746	-60%	$3,100
	Painting/Siding (Internal and External)	$0	0%	$0	0%	$1,000
	Cleaning Expenses	$17,521	3%	$18,052	31%	$23,700
	Carpentry	$0	0%	$0	0%	$0
	Roofing	$0	0%	$0	0%	$0
	Vehicle Exhaust System	$0	0%	$0	0%	$0
	Appliances	$0	0%	$0	0%	$0
	Training Equipment	$0	0%	$0	0%	$0
	Renovations and Upgrades	$0	0%	$0	0%	$0
	Maintenance Technology (Computers, Printers, Costs and/or On-going Hosting Fees, etc.)	$45,602	95%	$88,958	-45%	$48,900
	Grounds Maintenance	$500	20%	$600	0%	$600
	"Green" Initiatives	$698	47%	$1,027	17%	$1,200
	Other	$6,074	-6%	$5,692	37%	$7,800
	Total Facility Expenses	$128,910	37%	$176,460	-19%	$143,262
Parts and Repairs	**PARTS AND REPAIRS**					
	Lubricants	$12,313	26%	$15,558	0%	$15,600
	Parts	$161,250	-13%	$139,611	31%	$182,765
	Lighting and Signage	$0	0%	$0	0%	$0
	Overhead Doors	$1,000	0%	$1,000	0%	$1,000
	Hoses & Reels	$0	0%	$0	0%	$0
	Water Heater	$0	0%	$0	0%	$0
	Expansions and Retrofits	$0	0%	$0	0%	$0
	Equipment Maintenance	$0	0%	$0	0%	$0
	Equipment Rental/Lease	$0	0%	$0	0%	$0
	Other	$40,460	326%	$172,370	-52%	$82,000
	Total Parts and Repairs	$215,023	53%	$328,539	-14%	$281,365
Contracted Services	**Contracted Services** (List below names of agencies used for outsourcing of					
		$196,997	19%	$235,179	-25%	$176,722
		$0	0%	$19,650	-25%	$14,783
		$1,666	-93%	$119	320%	$500
		$4,809	-25%	$3,590	11%	$4,000
		$0	0%	$0	0%	$0
		$0	0%	$0	0%	$0
		$0	0%	$0	0%	$0
		$0	0%	$0	0%	$0
		$0	0%	$0	0%	$0
		$0	0%	$0	0%	$0
	Total Contracted Services	$203,472	27%	$258,538	-24%	$196,005
	TOTAL MAINTENANCE EXPENSES	$1,178,571	17%	$1,375,288	-9%	$1,257,538

	REVENUES *(Enter Revenues Generates from Maintenance C*	2009 ACTUAL REVENUES	% CHANGE	2010 ACTUAL REVENUES	% CHANGE	2011 BUDGET REVENUES
Revenue Contracts	**Revenue Contracts**					
		$21,000	-10%	$19,000	-21%	$15,000
		$83,951	-24%	$63,725	-51%	$31,000
		$0	0%	$0	0%	$0
		$0	0%	$0	0%	$0
		$0	0%	$0	0%	$0
	TOTAL REVENUES	$104,951	-21%	$82,725	-44%	$46,000
	SURPLUS/DEFICIT	$1,073,620	20%	$1,292,563	-6%	$1,211,538

Exhibit B

FACILITY & MAINTENANCE EXPENSES

Version 1.1

Enter System Name Below

Shuttlebus-ZOOM

INSTRUCTIONS
Fill in all "Non-Shaded" boxes with Applicable Maintenance Expenses

	EXPENSES ITEMS	2009 ACTUAL EXPENSES	% CHANGE	2010 ACTUAL EXPENSES	% CHANGE	2011 BUDGET EXPENSES
Salaries & Wages	**SALARIES AND WAGES**					
	Management Salaries (Applicable to Maintenance Functions Only)	$50,094	0%	$50,094	0%	$50,094
	Staff Maintenance Salaries (Mechanics and Technicians)	$205,032	-5%	$194,506	0%	$194,005
	Total Maintenance Salaries & Wages	$255,126	-4%	$244,600	0%	$244,099
	Fringe Benefits		0%		0%	
	Total Maintenance Salaries, Wages, and Fringe	$255,126	-4%	$244,600	0%	$244,099
Utilities	**UTILITIES**					
	Phone	$2,281	53%	$3,501	-5%	$3,320
	Electric	$8,799	-18%	$7,181	4%	$7,500
	Heat	$10,814	5%	$11,339	29%	$14,596
	Internet	$5,250	-18%	$4,300	28%	$5,500
	Other building maint, grounds, service contracts on facilities	$2,200	14%	$2,500	12%	$2,800
	Total Utilities	$29,344	-2%	$28,821	17%	$33,716
Facility Expenses	**FACILITY EXPENSE**					
	Facility Mortgage/Rent/Lease		0%		0%	
	Facility Insurance	$4,842	-1%	$4,772	15%	$5,500
	Heating, Ventilation, and Air Conditioning (HVAC) Servicing	$8,273	-4%	$7,951	-13%	$6,952
	Electrical and Plumbing Servicing	$6,340	14%	$7,233	-71%	$2,100
	Painting/Siding (Internal and External)	$0	0%	$0	0%	$1,000
	Cleaning Expenses	$0	0%	$0	0%	$0
	Carpentry		0%		0%	
	Roofing		0%		0%	
	Vehicle Exhaust System		0%		0%	
	Appliances		0%		0%	
	Training Equipment		0%		0%	
	Renovations and Upgrades		0%		0%	
	Maintenance Technology (Computers, Printers, Costs and/or On-going Hosting Fees, etc.)	$5,001	22%	$6,100	-61%	$2,400
	Grounds Maintenance	$500	20%	$600	0%	$600
	"Green" Initiatives		0%		0%	
	Other		0%		0%	
	Total Facility Expenses	$24,956	7%	$26,656	-30%	$18,552
Parts and Repairs	**PARTS AND REPAIRS**					
	Lubricants		0%		0%	
	Parts		0%		0%	
	Lighting and Signage		0%		0%	
	Overhead Doors		0%		0%	
	Hoses & Reels		0%		0%	
	Water Heater		0%		0%	
	Expansions and Retrofits		0%		0%	
	Equipment Maintenance		0%		0%	
	Equipment Rental/Lease		0%		0%	
	Other All inclusive	$17,556	737%	$146,924	-63%	$55,000
	Total Parts and Repairs	$17,556	737%	$146,924	-63%	$55,000
Contracted Services	**Contracted Services** (List below names of agencies used for outsourcing of					
	dealers		0%	$57,209	-44%	$32,000
			0%	$19,650	-25%	$14,783
			0%		0%	
			0%		0%	
			0%		0%	
			0%		0%	
			0%		0%	
			0%		0%	
			0%		0%	
			0%		0%	
			0%		0%	
	Total Contracted Services	$0	0%	$76,859	-39%	$46,783
	TOTAL MAINTENANCE EXPENSES	$326,982	60%	$523,860	-24%	$398,150
	REVENUES *(Enter Revenues Generates from Maintenance C*	**2009 ACTUAL REVENUES**	**% CHANGE**	**2010 ACTUAL REVENUES**	**% CHANGE**	**2011 BUDGET REVENUES**
Revenue Contracts	**Revenue Contracts**					
	york county	$21,000	-10%	$19,000	-21%	$15,000
	parts YC and others	$83,951	-24%	$63,725	-51%	$31,000
			0%		0%	
			0%		0%	
			0%		0%	
	TOTAL REVENUES	$104,951	-21%	$82,725	-44%	$46,000
	SURPLUS/DEFICIT	$222,031	99%	$441,135	-20%	$352,150

Exhibit C

FACILITY & MAINTENANCE EXPENSES

Version 1.1

Enter System Name Below

South Portland Bus Service

INSTRUCTIONS
Fill in all "Non-Shaded" boxes with Applicable Maintenance Expenses

	EXPENSES ITEMS	2009 ACTUAL EXPENSES	% CHANGE	2010 ACTUAL EXPENSES	% CHANGE	2011 BUDGET EXPENSES
Salaries & Wages	**SALARIES AND WAGES**					
	Management Salaries (Applicable to Maintenance Functions Only)	$4,391	-6%	$4,135	2%	$4,212
	Staff Maintenance Salaries (Mechanics and Technicians)	$51,822	-1%	$51,248	2%	$52,507
	Total Maintenance Salaries & Wages	$56,213	-1%	$55,383	2%	$56,719
	Fringe Benefits	$18,059	-2%	$17,763	2%	$18,033
	Total Maintenance Salaries, Wages, and Fringe	$74,272	-2%	$73,146	2%	$74,752
Utilities	**UTILITIES**					
	Phone	$2,716	-28%	$1,943	-20%	$1,560
	Electric	$6,778	-5%	$6,437	21%	$7,800
	Heat	$10,167	-39%	$6,173	107%	$12,750
	Internet		0%		0%	
	Other (water and sewer) - Note: Internet access is bundled with municipal IT department	$610	-17%	$505	26%	$636
	Total Utilities	$20,271	-26%	$15,058	51%	$22,746
Facility Expenses	**FACILITY EXPENSE**					
	Facility Mortgage/Rent/Lease	$0	0%	$0	0%	$0
	Facility Insurance (buried in municipal insurance)	$0	0%	$0	0%	$0
	Heating, Ventilation, and Air Conditioning (HVAC) Servicing	$550	2%	$560	0%	$560
	Electrical and Plumbing Servicing	$725	-29%	$513	95%	$1,000
	Painting/Siding (Internal and External)	$0	0%	$0	0%	$0
	Cleaning Expenses	$1,948	-12%	$1,717	-30%	$1,200
	Carpentry	$0	0%	$0	0%	$0
	Roofing	$0	0%	$0	0%	$0
	Vehicle Exhaust System	$0	0%	$0	0%	$0
	Appliances	$0	0%	$0	0%	$0
	Training Equipment	$0	0%	$0	0%	$0
	Renovations and Upgrades	$0	0%	$0	0%	$0
	Maintenance Technology (Computers, Printers, Costs and/or On-going Hosting Fees, etc.)	$500	0%	$500	0%	$500
	Grounds Maintenance	$0	0%	$0	0%	$0
	"Green" Initiatives	$698	47%	$1,027	17%	$1,200
	Other Sum total of a bunch of miscellaneous expenses that could fall under some ot the categ	$2,735	-58%	$1,162	141%	$2,800
	Total Facility Expenses	$7,156	-23%	$5,479	33%	$7,260
Parts and Repairs	**PARTS AND REPAIRS**					
	Lubricants	$4,477	57%	$7,047	4%	$7,300
	Parts	$54,668	-16%	$45,648	103%	$92,765
	Lighting and Signage	$0	0%	$0	0%	$0
	Overhead Doors	$1,000	0%	$1,000	0%	$1,000
	Hoses & Reels	$0	0%	$0	0%	$0
	Water Heater	$0	0%	$0	0%	$0
	Expansions and Retrofits	$0	0%	$0	0%	$0
	Equipment Maintenance	$0	0%	$0	0%	$0
	Equipment Rental/Lease	$0	0%	$0	0%	$0
	Other - was this supposed to be about parts and repairs for BUSES or for the garage facility?? This is all inclus		0%		0%	
	Total Parts and Repairs	$60,145	-11%	$53,695	88%	$101,065
Contracted Services	**Contracted Services** (List below names of agencies used for outsourcing of					
	this is the total for all our vendors such as Palmer Spring Co., NE Detroit Diesel, Cummins	$68,087	-20%	$54,669	-61%	$21,222
	do in-house because we don't have the capacity. We have one mechanic and so we look at		0%		0%	
	withh ALL that needs to be done. For example, sometimes we send out a bus for a "brake job"		0%		0%	
	to do it can be better spent on a half dozen other jobs that will give us better utilization of his		0%		0%	
	be used operationally.		0%		0%	
			0%		0%	
			0%		0%	
			0%		0%	
			0%		0%	
			0%		0%	
	Total Contracted Services	$68,087	-20%	$54,669	-61%	$21,222
	TOTAL MAINTENANCE EXPENSES	$229,931	-12%	$202,047	12%	$227,045

	REVENUES *(Enter Revenues Generates from Maintenance C*	2009 ACTUAL REVENUES	% CHANGE	2010 ACTUAL REVENUES	% CHANGE	2011 BUDGET REVENUES
Revenue Contracts	**Revenue Contracts**					
	None		0%		0%	
			0%		0%	
			0%		0%	
			0%		0%	
			0%		0%	
	TOTAL REVENUES	$0	0%	$0	0%	$0
	SURPLUS/DEFICIT	$229,931	-12%	$202,047	12%	$227,045

Exhibit D

FACILITY & MAINTENANCE EXPENSES

Version 1.1

Enter System Name Below

Regional Transportation Program

INSTRUCTIONS
Fill in all "Non-Shaded" boxes with Applicable Maintenance Expenses

	EXPENSES ITEMS	2009 ACTUAL EXPENSES	% CHANGE	2010 ACTUAL EXPENSES	% CHANGE	2011 BUDGET EXPENSES
Salaries & Wages	**SALARIES AND WAGES**					
	Management Salaries (Applicable to Maintenance Functions Only)	$15,000	0%	$15,000	0%	$15,000
	Staff Maintenance Salaries (Mechanics and Technicians)	$131,159	-3%	$127,136	2%	$129,221
	Total Maintenance Salaries & Wages	$146,159	-3%	$142,136	1%	$144,221
	Fringe Benefits	$49,621	4%	$51,705	2%	$52,912
	Total Maintenance Salaries, Wages, and Fringe	$195,780	-1%	$193,841	2%	$197,133
Utilities	**UTILITIES**					
	Phone	$32,168	14%	$36,660	3%	$37,660
	Electric	$16,923	-17%	$14,009	36%	$19,000
	Heat	$5,224	-36%	$3,358	64%	$5,500
	Internet	$0	0%	$0	0%	$0
	Other	$2,058	10%	$2,258	2%	$2,300
	Total Utilities	$56,373	0%	$56,285	15%	$64,460
Facility Expenses	**FACILITY EXPENSE**					
	Facility Mortgage/Rent/Lease	$36,585	9%	$39,902	7%	$42,750
	Facility Insurance	$1,200	0%	$1,200	0%	$1,200
	Heating, Ventilation, and Air Conditioning (HVAC) Servicing		0%		0%	
	Electrical and Plumbing Servicing		0%		0%	
	Painting/Siding (Internal and External)		0%		0%	
	Cleaning Expenses	$15,573	5%	$16,335	38%	$22,500
	Carpentry		0%		0%	
	Roofing		0%		0%	
	Vehicle Exhaust System		0%		0%	
	Appliances		0%		0%	
	Training Equipment		0%		0%	
	Renovations and Upgrades		0%		0%	
	Maintenance Technology (Computers, Printers, Costs and/or On-going Hosting Fees, etc.)	$40,101	105%	$82,358	-44%	$46,000
	Grounds Maintenance		0%		0%	
	"Green" Initiatives		0%		0%	
	Other	$3,339	36%	$4,530	10%	$5,000
	Total Facility Expenses	$96,798	49%	$144,325	-19%	$117,450
Parts and Repairs	**PARTS AND REPAIRS**					
	Lubricants	$7,836	9%	$8,511	-2%	$8,300
	Parts	$106,582	-12%	$93,963	-4%	$90,000
	Lighting and Signage		0%		0%	
	Overhead Doors		0%		0%	
	Hoses & Reels		0%		0%	
	Water Heater		0%		0%	
	Expansions and Retrofits		0%		0%	
	Equipment Maintenance		0%		0%	
	Equipment Rental/Lease		0%		0%	
	Other	$22,904	11%	$25,446	6%	$27,000
	Total Parts and Repairs	$137,322	-7%	$127,920	-2%	$125,300
Contracted Services	**Contracted Services** (List below names of agencies used for outsourcing of					
	Varing outsourced services for engine and transmission rebuild; major repairs and major body	$13,783	-17%	$11,496	17%	$13,500
	(Rowe Ford, Palmer Spring, Cressey, Quirk, etc.)		0%		0%	
	Bus Washing (Metro)	$1,666	-93%	$119	320%	$500
	Vehicle Towing	$4,809	-25%	$3,590	11%	$4,000
	(Stewarts Towing)		0%		0%	
			0%		0%	
			0%		0%	
			0%		0%	
			0%		0%	
			0%		0%	
	Total Contracted Services	$20,258	-25%	$15,205	18%	$18,000
	TOTAL MAINTENANCE EXPENSES	$506,531	6%	$537,576	-3%	$522,343

	REVENUES *(Enter Revenues Generates from Maintenance C*	2009 ACTUAL REVENUES	% CHANGE	2010 ACTUAL REVENUES	% CHANGE	2011 BUDGET REVENUES
Revenue Contracts	**Revenue Contracts**					
	NA		0%		0%	
			0%		0%	
			0%		0%	
			0%		0%	
			0%		0%	
	TOTAL REVENUES	$0	0%	$0	0%	$0
	SURPLUS/DEFICIT	$506,531	6%	$537,576	-3%	$522,343

Exhibit E

FACILITY & MAINTENANCE EXPENSES

Version 1.1

Enter System Name Below

YCCAC

INSTRUCTIONS
Fill in all "Non-Shaded" boxes with Applicable Maintenance Expenses

	EXPENSES ITEMS	2009 ACTUAL EXPENSES	% CHANGE	2010 ACTUAL EXPENSES	% CHANGE	2011 BUDGET EXPENSES
Salaries & Wages	**SALARIES AND WAGES**					
	Management Salaries (Applicable to Maintenance Functions Only)		0%		0%	
	Staff Maintenance Salaries (Mechanics and Technicians)		0%		0%	
	Total Maintenance Salaries & Wages	$0	0%	$0	0%	$0
	Fringe Benefits		0%		0%	
	Total Maintenance Salaries, Wages, and Fringe	$0	0%	$0	0%	$0
Utilities	**UTILITIES**					
	Phone		0%		0%	
	Electric		0%		0%	
	Heat		0%		0%	
	Internet		0%		0%	
	Other		0%		0%	
	Total Utilities	$0	0%	$0	0%	$0
Facility Expenses	**FACILITY EXPENSE**					
	Facility Mortgage/Rent/Lease		0%		0%	
	Facility Insurance		0%		0%	
	Heating, Ventilation, and Air Conditioning (HVAC) Servicing		0%		0%	
	Electrical and Plumbing Servicing		0%		0%	
	Painting/Siding (Internal and External)		0%		0%	
	Cleaning Expenses		0%		0%	
	Carpentry		0%		0%	
	Roofing		0%		0%	
	Vehicle Exhaust System		0%		0%	
	Appliances		0%		0%	
	Training Equipment		0%		0%	
	Renovations and Upgrades		0%		0%	
	Maintenance Technology (Computers, Printers, Costs and/or On-going Hosting Fees, etc.)		0%		0%	
	Grounds Maintenance		0%		0%	
	"Green" Initiatives		0%		0%	
	Other		0%		0%	
	Total Facility Expenses	$0	0%	$0	0%	$0
Parts and Repairs	**PARTS AND REPAIRS**					
	Lubricants		0%		0%	
	Parts		0%		0%	
	Lighting and Signage		0%		0%	
	Overhead Doors		0%		0%	
	Hoses & Reels		0%		0%	
	Water Heater		0%		0%	
	Expansions and Retrofits		0%		0%	
	Equipment Maintenance		0%		0%	
	Equipment Rental/Lease		0%		0%	
	Other		0%		0%	
	Total Parts and Repairs	$0	0%	$0	0%	$0
Contracted Services	**Contracted Services** (List below names of agencies used for outsourcing of					
	Shuttlebus	$115,127	-3%	$111,805	-2%	$110,000
			0%		0%	
			0%		0%	
			0%		0%	
			0%		0%	
			0%		0%	
			0%		0%	
			0%		0%	
			0%		0%	
			0%		0%	
			0%		0%	
	Total Contracted Services	$115,127	-3%	$111,805	-2%	$110,000
	TOTAL MAINTENANCE EXPENSES	$115,127	-3%	$111,805	-2%	$110,000

	REVENUES *(Enter Revenues Generates from Maintenance C*	2009 ACTUAL REVENUES	% CHANGE	2010 ACTUAL REVENUES	% CHANGE	2011 BUDGET REVENUES
Revenue Contracts	**Revenue Contracts**					
			0%		0%	
			0%		0%	
			0%		0%	
			0%		0%	
			0%		0%	
	TOTAL REVENUES	$0	0%	$0	0%	$0
	SURPLUS/DEFICIT	$115,127	-3%	$111,805	-2%	$110,000

SHUTTLEBUS-ZOOM

The Shuttlebus-Zoom annual expenses for facility and maintenance services combined to equal in excess of a $500,000 in 2010, up approximately 60% from the prior year. A large portion of the increase in costs can be attributed to a 700% increase in the purchase of parts and repairs to maintain equipment in a state of good repair from 2009. The projection for 2011 is an improvement largely due to a projected 60% drop in those very same purchases of parts and repairs. Below is a section by section review.

1. Salaries and Wages: The maintenance expenses for salaries and wages Shuttlebus incurred in 2010 dropped modestly by roughly 5% to $244,600. Staffing services attributed to maintenance at the facility has remained consistent, requiring 3 full time mechanics and a fleet manager.

2. Utilities: The utilities needed to power the building and manage services have remained steady, increasing only 2% in 2010. Projections for 2011 are up 17% due to anticipated increases in heating costs. Utilities costs are currently in excess of $28,000 annually.

3. Facility Expenses: With the building now over 30 years old, building preventative maintenance costs have been approximately $15,000 for the past two years to keep heating, air conditioning (HVAC), electrical, and plumbing equipment in working order. Other facility expenses include approximately $5,000 on building insurance, $5,000 on maintenance technologies, and modest costs associated with grounds maintenance. Total facility expenses in 2010 approached $27,000.

4. Parts and Repairs: This is an area of escalating costs due largely to an aging fleet. In 2010 costs associated with parts and repairs to maintain equipment in a state of good repair was $146,924, up from $17,556 in 2009. Shuttlebus is maintaining a fleet in excess of their useful life and in greater numbers than would be necessary if they had newer equipment. This is causing stress on both the budget and the mechanics time.

5. Contracted Services: Dealer charges in 2010 were $76,859.These costs are related to outsourcing of heavy duty maintenance repairs which are not within the expertise of Shuttlebus staff.

6. Revenue Contracts: Shuttlebus maintains the York County Community Action fleet to help generate revenue and offset costs.

SOUTH PORTLAND BUS SERVICE

South Portland Bus Service annual expenses for facility and maintenance services combined to equal slightly over $200,000 in 2010, down approximately 12% from the prior year. Noticeable changes that can account for this decrease is a 26% decrease in utility costs, 23% decrease in facility expenses, 11% decrease in cost of part and repairs, and a 20% decrease in outsourcing charges.

While South Portland Bus Service can boast a reduction in maintenance costs, what is apparent is these decreases could be even greater because the costs for parts and repairs and outsourcing make up more than half of the total maintenance costs. This is due to having to maintain a fleet well beyond its useful life and South Portland Bus maintaining a greater number of vehicles than would be necessary if they had newer equipment. This trend will continue to get more serious without suitable replacements coming soon. Below is a section by section review.

1. Salaries and Wages: The maintenance expenses for salaries and wages South Portland incurred in 2010 dropped modestly by approximately 2% to $73,146. Staffing services attributed to maintenance at the facility has remained consistent, requiring 1 full time mechanic with management support as needed.

2. Utilities: The utilities needed to power the building and manage services decreased 26% in 2010 due largely to a $4,000 drop in heating costs during the year as a result of a natural gas heat conversion that leverages a better rate. Projections for 2011 are back up 51% due to anticipated increases in those natural gas heating costs. Utility costs are currently are in excess of $15,000 annually.

3. Facility Expenses: Facility expenses are fairly modest for a building now over 60 years of age. Preventative maintenance costs have been approximately $5,000 - $7,000 for the past two years mostly due to ancillary maintenance activities such as cleaning and maintenance technology.

4. Parts and Repairs: This is an area of high escalating costs due largely to an aging fleet. In 2010 costs associated with parts and repairs to maintain equipment in a state of good repair was $53,695, down from $60,145 in 2009. South Portland is maintaining a fleet in excess of their useful life, and with a high quantity of older vehicles. The high number of older vehicles is causing stress on both the overall budget and also on mechanic's time.

5. Contracted Services: Dealer charges for maintenance services in 2010 were $54,669, down from the 2009 total of $68,087. These costs are related to outsourcing of heavy duty service repairs South Portland Bus doesn't have the capacity to maintain.

6. Revenue Contracts: South Portland Bus does not have revenue contracts.

REGIONAL TRANSPORTATION PROGRAM

The Regional Transportation Program annual expenses of facility and maintenance services combined equal just over $537,000 in 2010, up approximately 6% from the prior year. The noticeable change that can account for most of this increase is a doubling in the costs of maintenance technology from 2009, an increase of more than $42,000.

The Regional Transportation Program is located in a shared facility arrangement with the Greater Portland Metro Services and is facing growing needs in a spacially constrained facility. Their facility expenses including rent and utilities make up 38% of the costs, while parts and repairs make up 27% of their total facility and maintenance costs. The costs for parts, repairs and outsourcing are increasing in costs due to a fleet in excess of their useful life. This trend will

continue to become more detrimental to the agency without suitable replacements arriving in the near future. Below is a section review.

1. Salaries and Wages: The maintenance expenses of salaries and wages of the Regional Transportation Program incurred in 2010 dropped modestly by about 1% to $193,841. Staffing services attributed to maintenance at the facility has remained relatively constant, requiring 3 full time mechanics.

2. Utilities: The various utilities needed to power the building and manage services had no significant change 2010.

3. Facility Expenses: Facility expenses are up 49% from 2009 with noticeable changes in rent (up $3,500) and maintenance software (up $42,000).

4. Parts and Repairs: This is an area of escalating costs due largely to an managing an aging fleet. In 2010, costs associated with parts and repairs to maintain equipment in a state of good repair was $127,920, down from $137,322 in 2009, but a significant cost attributed to maintaining a high number of vehicles in a fleet which is in excess of Federal useful life vehicle standards. This is causing stress on both the overall budget and the mechanics time.

5. Contracted Services: Dealer charges for services in 2010 were $15,205, down from the 2009 total of $20,258. These costs are related to outsourcing of heavy duty service and repairs that the Regional Transportation Program doesn't have the capacity for at this time.

6. Revenue Contracts: The Regional Transportation Program does not have revenue contracts.

YORK COUNTY COMMUNITY ACTION CORPORATION

The York County Community Action Corporation (YCCAC) maintains administrative offices in Sanford, Maine and preserves their bus fleet through an outsourced contract with Shuttlebus. Their participation in this study is for the review of outsourcing their fleet maintenance services only. Efficiencies that can be realized due to consolidation are the results the YCCAC are most interested in.

YCCAC's annual expenses for outsourced of maintenance services in 2010 totaled $111,805 a decrease of approximately 3% from the prior year. No noticeable change in these costs, but like the other providers the YCCAC is facing the inevitability of increased costs for parts, repairs and outsourcing due to a fleet in excess of their useful life, and with a greater number of vehicles providing in service than would be necessary if they had newer vehicles. This trend will continue to be detrimental without suitable vehicle replacements coming soon. Below is a section by section review.

1. Salaries and Wages: N/A

2. Utilities: N/A

3. Facility Expenses: N/A

4. Parts and Repairs: N/A

5. Contracted Services: Outsourcing charges for services in 2010 were $111,805, down from the 2009 total of $115,127. These costs are related to outsourcing of maintenance service and repairs. The York County Community Action doesn't have the facilities or staffing to perform maintenance.

6. Revenue Contracts: N/A

CONSOLIDATED COST ASSESSMENT

As a united entity the four providers accumulated total annual expenses for facility and maintenance services combined to equal just over $1,292,563 in 2010, up approximately 20% from the prior year total of $1,073,620. The noticeable changes among the four providers that can account for the majority of this increase are:

- An increase in the costs of maintenance technology from 2009 for the Regional Transportation Program. This was an increase of more than $42,000 representing a more than 100% increase.
- An increase in parts and repairs costs from $40,460 in 2009 to $172,370 in 2010. The majority of this increase was the Shuttlebus costs of $146,924, an increase of more than 700% from their prior year.
- The last extreme increase noticeable is in the Contracted Services category. This increase overall was 27% from $203,427 in 2009 to $258,538 in 2010. The major contributor to that number again was Shuttlebus who in 2009 had $0 in outsourcing of services to $76,859 in 2010.

Other factors contributing to affects on this overall budget increase of 20% for the combined four providers, but those listed above are the most telling. With exception to the maintenance software increase (bullet 1), the other major changes are clearly due to a large percentage of equipment in a state of disrepair due to age and demand to meet service levels on a daily basis. All four providers are facing similar circumstances with the need to expend more resources on parts and repairs, and outsourcing due to time constraints of staffing and accommodate the growing complexity of heavy duty repairs needed to maintain equipment. All the agencies are carrying large vehicle fleets in excess of their useful life. This trend, overall costs, and financial strain on individual agency budget's will continue in its current state, and are likely to become more serious as potentially catastrophic issues related to safety come into play. Below is a section by section review of the consolidated cost assessment.

1. Salaries and Wages: The maintenance expenses dedicated to salaries and wages for the study group's core staffing (7 full time mechanics) is steady, indicating the burden of the aging equipment and fleet has stretched their staffs time and expertise, however this is not a result of additional hiring's. In 2010, $511,587 was spent on mechanics salaries,

down slightly (3%) from 2009. What these numbers do not show is the increased level of outsourcing that is occurring to keep the fleet road worthy on a daily basis. Those numbers are prevalent in the contracted services later in this section.

2. Utilities: The various utilities needed to power the three (3) locations and manage services were $100,164 in 2010, down 5% from 2009. This decrease was due to leveraging a natural gas contract at an economical rate, that rate will return closer to normal in 2011.

3. Facility Expenses: Facility expenses of the core study group combined total of $176,460 in 2010, up 37% in 2009. This increase was largely due to a jump in technology costs for the Regional Transportation Program. Without this technology expense the increase would have been more along the line of 5%, and that number is more reflective of the anticipated increase in 2011 budgets. It is realistic to assume the costs of maintaining these facilities will continue to grow, especially because two of the buildings are at 60+ and 30+ years of age.

4. Parts and Repairs: Certainly the most burdensome costs associated with this study are maintaining the vehicles, and equipment, with parts and repairs. This is clearly identified as an area of escalating costs due predominantly to an aging fleet. In 2010 costs associated with parts and repairs to maintain equipment in a state of good repair for the core study group was $328,539, up 53% from $215,023 in 2009. The financial duress that is occurring by having to endure 25% of a maintenance budget directed to funding the cost of parts and repairs is becoming staggering. The level of duress can be felt beyond just the budget numbers and can also be found in performing route restructuring with service cuts and fare increases. The costs attributed to maintaining fleets in excess of their useful life will surpass the need of just service cuts and fare increases, and may possibly bleed over into job cuts.

5. Contracted Services: Equally burdensome is the level of outsourcing being used to maintain vehicle fleets. Outsourcing can be an effective approach to prevent unnecessary hiring of staff and it also alleviates the stress of layoffs down the road if work slows down. However, this is not the reason for the outsourcing, and therefore this number should be concerning and quite possibly is 100-200% higher than it should be because the majority of equipment is beyond its useful life. This is causing an increase in the level of work normally performed in house, subsequently increasing the need to outsource work to keep up with maintenance needs. All providers stated much of the work they sub-contract out could be done in house, but staff is struggling to keep up with work loads and forced to prioritize in-house work. The costs of contracted services in 2010 were $258,538 up from $203,472 in 2009.

6. Revenue Contracts: The only revenue contract is between Shuttlebus and the York County Community Action to maintain the York County fleet. This contract helps generate revenue and offset Shuttlebus expenses. In 2010 the contract generated $82,725 in revenues for Shuttlebus, down 21% from 2009. What could be a growing concern is the level of outsourcing Shuttlebus has begun to incur. In 2009 Shuttlebus had $0 incurred in outsourced jobs, and in 2010 that number was $76,859. The question has to be raised, is the contract with York County starting to cut into the time Shuttlebus has to

maintain their own fleet needs, rendering the contract more of a burden than a benefit? This shouldn't be a concern, but again, with the physical condition of existing fleets being in such disrepair, it is something Shuttlebus may need to re-evaluate soon.

V - TEN YEAR NEEDS ASSESSMENT

A "Needs Assessment" is a process for evaluating and addressing current and future needs and/or gaps between existing conditions and preferred conditions. The needs of transportation agencies are an objective to improve current performance or to correct deficiencies. A needs assessment is an integral part of the planning process and an essential element of education in understanding current costs and required future resources needed to maintain existing services.

The charts (A&B) on the following pages show aging facilities, fleets and equipment long past their useful life, having a need of an initial investment exceeding fifteen million dollars ($15,000,000). Failure to start addressing these needs soon will result in increased maintenance costs, safety concerns, and increased service interruption.

CHART A – Needs Assessment of Shuttlebus-ZOOM and South Portland Bus Service

CHART B – Needs Assessment of the Regional Transportation Program and York County Community Action Corporation

CHART A

SHUTTLEBUS-ZOOM																
Year	Agency	Useful Life	Type	Number of Vehicles	Replacement Cost	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
1980	Shuttlebus-ZOOM	30	Facility	1	$3,000,000	$3,000,000										
1981		7	Bus	1	$175,000	$175,000							$175,000			
1985		7	Bus	1	$175,000	$100,000							$100,000			
1992		7	Bus	1	$175,000	$175,000							$175,000			
1995		15	Lift	1	$100,000	$100,000										
1999		10	Bus	1	$175,000	$175,000										$175,000
1999		12	Trolley	1	$350,000	$350,000										
2000		12	Trolley	5	$350,000	$1,750,000										
2002		10	Bus	1	$175,000	$175,000										$175,000
2002		12	Bus	2	$350,000			$700,000								
2003		12	Bus	2	$350,000				$700,000							
2004		5	Service	1	$30,000	$30,000					$30,000					$30,000
2005		5	Software	1	$100,000	$100,000					$100,000					$100,000
2006		12	Bus	1	$350,000							$350,000				
2010		12	Bus	4	$350,000											$1,400,000
Shuttlebus Needs By Year						$6,130,000	$0	$700,000	$700,000	$0	$130,000	$350,000	$450,000	$0	$0	$1,880,000

SOUTH PORTLAND BUS SERVICE																
Year	Agency	Useful Life	Type	Number of Vehicles	Replacement Cost	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
1950	SPBS	30	Facility	1	$3,000,000	$3,000,000										
1996		12	Bus	3	$400,000	$1,200,000										
1999		12	Bus	2	$400,000	$800,000										
2002		12	Bus	2	$350,000			$700,000								
2005		15	Lift	1	$100,000									$100,000		
2008		7	Bus	2	$150,000				$300,000							$300,000
2010		5	Software	1	$100,000				$100,000					$100,000		
2011		12	Bus	3	$400,000											
South Portland Bus Needs By Year						$5,000,000	$0	$700,000	$400,000	$0	$0	$0	$0	$200,000	$0	$300,000

CHART B

REGIONAL TRANSPORTATION PROGRAM																
Year	Agency	Useful Life	Type	Number of Vehicles	Replacement Cost	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
1993	RTP	5	Service	1	$30,000	$30,000					$30,000					$30,000
1998		5	Van	1	$55,000	$55,000					$55,000					$55,000
2000		5	Van	1	$50,000	$50,000					$50,000					$50,000
2003		5	Van	7	$50,000	$350,000					$350,000					$350,000
2003		5	Bus	1	$80,000	$80,000					$80,000					$80,000
2004		5	Bus	6	$80,000	$480,000					$480,000					$480,000
2004		5	Van	3	$50,000	$150,000					$150,000					$150,000
2005		5	Software	1	$100,000	$100,000					$100,000					$100,000
2006		5	Van	2	$60,000	$120,000					$120,000					$120,000
2007		5	Van	8	$25,000	$400,000					$400,000					$400,000
2007		5	Van	1	$55,000	$55,000					$55,000					$55,000
2008		5	Van	1	$55,000		$55,000					$55,000				
2010		7	Bus	3	$130,000						$390,000					
2010		5	Van	2	$40,000				$80,000					$80,000		
RPT Bus Needs By Year						$1,870,000	$55,000	$0	$80,000	$0	$2,260,000	$55,000	$0	$80,000	$0	$1,870,000

YORK COUNTY COMMUNITY ACTION CORPORATION																
Year	Agency	Useful Life	Type	Number of Vehicles	Replacement Cost	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
1992	YCCAC	5	Bus	2	$60,000	$120,000					$120,000					$120,000
1993		5	Van	1	$30,000	$30,000					$30,000					$30,000
1995		5	Bus	2	$60,000	$120,000					$120,000					$120,000
1995		7	Bus	1	$100,000	$100,000							$100,000			
1998		5	Bus	2	$60,000	$120,000					$120,000					$120,000
1998		7	Bus	3	$100,000	$300,000							$300,000			
1999		7	Trolley	3	$100,000	$300,000							$300,000			
1999		7	Bus	1	$100,000	$100,000							$100,000			
2001		7	Bus	4	$100,000	$400,000							$400,000			
2003		7	Bus	4	$100,000	$400,000							$400,000			
2004		5	Van	1	$30,000	$30,000					$30,000					$30,000
2005		5	Van	4	$30,000	$120,000					$120,000					$120,000
2007		5	Van	2	$30,000	$60,000					$60,000					$60,000
2007		7	Bus	3	$100,000			$300,000							$300,000	
2010		7	Bus	7	$100,000						$700,000					
2010		5	Software	1	$100,000				$100,000					$100,000		
YCCAC Bus Needs By Year						$2,200,000	$0	$300,000	$100,000	$0	$1,300,000	$0	$1,600,000	$100,000	$300,000	$600,000
Total Needs By Year						$15,200,000	$55,000	$1,700,000	$1,280,000	$0	$3,690,000	$405,000	$2,050,000	$380,000	$300,000	$4,650,000

Needs Assessment Evaluation:

SHUTTLEBUS-ZOOM

The Shuttlebus-Zoom service has been maintained on a limited budget while dealing with inflated maintenance costs due to aging equipment and lack of resources to afford replacements. Present conditions indicate an initial investment of approximately $6,130,000 required to address current vehicle and equipment needs to bring services back into a state of good repair. Among those initial investments are:

1. Facility: Service and staffing have outgrown current facilities. The existing building is over 30 years of age and offers no possibility for expansion on the property.

2. Vehicles: 12 vehicles within the fleet have exceeded their useful life and are a financial strain on the agency budget to continue to maintain. This is forcing Shuttlebus to carry a larger aging fleet than necessary to account for the unanticipated breakdowns.

3. Lift: The current lift is in excess of 15 year of age and should be upgraded.

4. Software: Current administrative and maintenance software is outdated, and new technologies offer effective management capabilities that can help reduce staff time needed to administer programs, and help reduce costs associated with service delivery.

SOUTH PORTLAND BUS SERVICE

The South Portland Bus Services have been able to save limited financial resources required to aid in any future purchase (the local match) but have not been able to make the purchases necessary to maintain a reliable fleet. As a result, this agency is dealing with inflated maintenance costs due to aging equipment and the inability to replace it. Present conditions indicate an initial investment of approximately $5,000,000 would be required to address facility and vehicles needs to bring services back into a state of good repair. Among those initial investments are:

1. Facility: The existing building is over 60 year of age and requires extensive rehabilitation to meet a state of good repair. The property footprint offers the possibility for expansion if new construction is a consideration.

2. Vehicles: 5 vehicles within the fleet have exceeded their useful life and are a financial strain on budgets to continue to maintain. South Portland Bus is also carrying a larger fleet than necessary to account for the unanticipated breakdowns.

REGIONAL TRANSPORTATION PROGRAM

The Regional Transportation Program currently shares facility space with Portland Metro within the City of Portland. The majority of their existing fleet is at or will meet its useful life within the next two years. Maintenance costs due to aging equipment and lack of available resources are constantly increasing. As a designated regional provider for Cumberland County many agencies and individuals rely on the timely response of the Regional Transportation Program. This response time will be jeopardized as their fleet ages with no available resources to call on for relief. Present conditions indicate an initial investment of approximately $1,870,000 would be required to address current needs for vehicles and equipment to bring services back into a state of good repair. Among those initial investments are:

1. Vehicles: 31 vehicles within the fleet are approaching or have exceeded their useful life and are a financial strain on budgets to continue to maintain. These costs will continue to grow and services will continue to be affected due to unexpected breakdowns.

2. Software: The current scheduling and dispatch software was purchased around 2005. Technology advancements in this field have grown two-fold since initial purchase and offer present day management enhancements that can further reduce staff time necessary to administer programs and help reduce costs associated with service delivery.

YORK COUNTY COMMUNITY ACTION CORPORATION

The York County Community Action Corporation maintains administrative offices in Sanford, Maine and preserves their bus fleet through an outsourced contract with Shuttlebus. The majority of their existing fleet has currently met or exceeded its useful life, and also faces the reality of out of service vehicles and high maintenance costs. As a designated regional provider for York County, many agencies and individuals rely on the timely response of the York County Community Action to provide timely service. This response time will be jeopardized as their fleet ages with no available resources to call on for relief. Present conditions indicated an initial investment of approximately $2,200,000, will be required to address current vehicle needs to bring services back into a state of good repair. Among those initial investments are:

1. Vehicles: Thirty (30) of the forty (40) vehicles in the fleet have exceeded their useful life and are causing a financial strain on budgets to continue to maintain. These costs will continue to grow and services will continue to be affected due to unexpected breakdowns.

VI – MAINTENANCE SOFTWARE NARRATIVE

The assessment involving existing conditions includes an evaluation of each agency's current maintenance software programs, including the software's purpose, frequency of use, depth of capability, and overall functionality. Three of the four agencies involved in this study the South Portland Bus Service, Regional Transportation Program, and Shuttle Bus-Zoom each have software programs that are currently in use. The Scarborough facility also utilizes vehicle maintenance software, which was assessed for potential future regional maintenance coordination purposes.

South Portland Bus Service (SPBS) and the Regional Transportation Program (RTP)

Both programs utilize a software program called "RTA Fleet Tracking Systems for Transit Fleets". This is a system used by hundreds of Transit and Para-transit Fleets throughout North America for vehicle maintenance and service, and has the ability to fit a transit agency's specific needs. The RTA Fleet Tracking System also has the capability to screen maintenance budgets and operating costs. Some common features of the program are listed below:

1. PM Scheduling and Tracking for all your equipment
2. Total Vehicle Cost accounting and reporting
3. Vehicle MPG tracking with exception reporting
4. Dashboard monitoring tools for equipment issues and fleet performance
5. Full Parts Inventory and Purchasing tracking
6. Warranty recovery module to increase your bottom line
7. Departmental billing and charge-back capabilities
8. Full Technician accountability and Time clock
9. Tool Tracking
10. Fuel usage and consumption reporting
11. Tank and Pump tracking and reporting
12. Paperless shop – a dream come true
13. Surviving the Parts audit
14. Motor Pool for the fleet
15. Tire cost and tracking
16. Tracking Road calls and Expensive repairs
17. Fleet Utilization
18. Fleet Status reporting
19. Driver Reporting
20. Equipment Status and availability reporting
21. On Board equipment tracking
22. Work Order tracking
23. Full Features List

The RTA Fleet Tracking System SPBS currently utilizes is approximately a year old, whereas RTP's software is 18 years old. Both agencies are satisfied with the functionality of this software program. As with any new software program, there is a learning curve associated with it, but as a scalable program it offers opportunities in consolidation.

Shuttlebus-ZOOM

Shuttlebus-ZOOM possesses a software program called "Filemaker Pro". This is a database management system used by provate business, government, and educational institutions. FileMaker Pro can manage information on Windows, Mac, and web based platforms

This software comes with more than 30 built-in starter solutions to manage important tasks including:

1. It can create custom databases
2. Drag and drop Microsoft Excel data
3. Create reporting tools
4. Email reports
5. Publish to the web
6. Create surveys
7. Create registration sites
8. Create customer feedback forms
9. Share with other users or over a network.

This is a generalized software product, and because it is not directed towards vehicle and equipment maintenance needs specifically, there are limitations in its use for transit agencies. The software has other functions which are more relevant to the administrative side of transportation, however Shuttlebus staff is not completely well-versed on the capabilities of the software, and are still in the process of learning more about the overall program functionality.

Town of Scarborough

The Town of Scarborough possesses a software program called "CitiTech Systems, Inc". This is a fully integrated maintenance management system for government agencies, public works departments, and transportation departments.

The CitiTech Systems, Inc. is asset maintenance and management software solutions designed to help an organization control costs, improve efficiency, and offers many compliant requirements. Its analysis capabilities extend to work orders, asset inspections, asset deficiencies and condition, requests, work completion, resource utilization, and work analysis.

The software is designed to handle all the major functions of any transportation agency in a streamlined application such as:

1. General Operations
2. Equipment Maintenance
3. Inventory Management
4. Purchase Orders
5. Employee Management
6. Reports Module
7. Daily Work Reporting
8. Customer/Vendor Management
9. Accounting & Budgeting
10. Alert Reminders

The software includes optional modules to expand functionality and offers customized development to allow users to enter information specific to an organization's maintenance workflow and maintenance processes.

The Town of Scarborough also has Snap-on brand software which is a diagnostic tool and that allows the user to diagnose vehicle problems and offers mechanical solutions. This is bundled software designed to help troubleshoot and problem solve mechanical issues in a shorter amount of time than it would without the program. A Snap-on dealer window is located within the Public Works building indicating that Snap-On is the parts provider for the town vehicles.

At this time, it is unclear if use of this program for each individual transit agency is a viable option, because unlike the town, they must comply with federal acquisition requirements. The vehicle diagnostic tool can be useful however, for maintenance problem solving, but in terms of purchasing Snap-On only brand parts and tools will depend on the quantity and cost of purchases for the transit agency. If these costs exceed the minimum cost requirements then the transit agencies will need to purchase their parts elsewhere.

Conclusion:

Of the four agencies that currently use maintenance software, the most robust seems to be the Town of Scarborough's "CitiTech Systems" which offers the most expandability for transit agency use. The SPBS software "RTA Fleet Tracking Systems" is more than capable and is newer than the version RTP has. The Shuttlebus-ZOOM software "Filemaker Pro", while more diversified in overall management, is not as strong in its maintenance tracking and management capabilities as the other programs reviewed are.

In assessing the potential of a vehicle maintenance software system and the possible coordinating of transit agencies into one facility, it makes the most sense to be able to tie into a system that has the capability to expand to meet all transit agency's needs. In this way leveraging the most useful software program to meet agency maintenance needs will avoid unnecessary additional purchases. In the event that SPBS and Shuttlebus–Zoom operations relocate to the Scarborough facility, or a decision to seek a new facility at a new location, the software programs that can adapt and consolidate maintenance management practices among several agencies should be utilized. This includes continuing and tying into the use of "CitiTech Systems" at the Scarborough facility and the use of the "RTA Fleet Tracking systems" in a newer facility.

VII – PROCUREMENT NARRATIVE

The procurement narrative illustrates the procurement procedures of the transit agencies collectively and the possible outcomes on the acquisition of vehicles and equipment. This process is included within the study to gain a basic understanding of how the vehicles and equipment of each of the agencies included in the study were initially purchased. In the course of interviews with members of the core study group, several common characteristics were discovered:

- Existing fleets have a high percentage of vehicles beyond their useful life. Useful life is defined as the expected lifetime of a facility or property, or the acceptable period of use in service. For bus and transit vehicles, this is determined during the Altoona testing process.

- Agencies are carrying well beyond the 20% spare factor to account for regular breakdowns. Spare ratio is defined as the number of spare vehicles divided by the vehicles required for annual maximum service (Peak Fleet.)The vehicle spare ratio is usually expressed as a percentage, for example, recipients operating 50 or more fixed route revenue vehicles should not exceed 20 percent the number of vehicles operated in peak service.
- Vehicle and entire fleet manufacturer make-up was diverse within organizations, even for like configurations, whereby buses within a fleet have the same seating configurations such as 18 seats/2 wheelchair stations for example.
- A wide variety of inventory parts and supplies have to be purchased and stored to accommodate for many different vehicle models in one agency fleet alone
- Mechanic's training, knowledge, and skill sets are challenged by the wide variety of vehicle manufacturers and models of vehicles they maintain.

The assessment of procurement procedures illustrates that all transit agency vehicles were acquired through a lease agreement with MaineDOT. In the past, individual transit agencies were allowed to procure their own equipment, but in recent years MaineDOT began their own acquisition practices and in turn, each transit agency had to purchase their vehicles from the state. This resulted in a statewide procurement management system, and directed sub-recipients to acquire vehicles directly from MaineDOT. These vehicles however are not purchased outright; rather the agencies lease their vehicles from Maine DOT.

MaineDOT is responsible for drafting the vehicle solicitation with input from individual transit agency operators and their mechanics. The solicitation is awarded to the most responsive and/or responsible bidders and was advertised as an Invitation for Bid (IFB) or low bid, with the criteria that the vehicles are delivered on time and meet specification requirements. This effectively created a pool of vehicle configurations to choose from, and sub-recipients are able to select from a list of available vehicles, and based on a valid justification, could purchase vehicles through a state lease agreement. Vehicles are funded 80% with Federal dollars and 20% local matching funds.

This arrangement would theoretically provide the state with an opportunity to standardize models in fleet configurations, minimizing the focus of mechanics training, and providing for uniform parts storage. However, operators have noticed opposite results, and in fact vehicle inventories among transit agencies show that their fleets consist of a large variation of vehicles. Some staff and mechanics were displeased with the state's vehicle procurement process, and felt their agency input was not included in the final solicitation process. Staff raised several concerns with the state process including; poor vehicle quality, lack of specific vehicle types needed by transit agencies; limited availability of federal funding, and the financial burden of the local match. These factors caused transit systems to maintain older vehicles for longer durations.

From the many discussions with all participating transit agency operators and their mechanics, and considering the age and condition of existing fleets, the following was concluded:

1. The intent of a statewide procurement solicitation offers all transit agencies the ability to choose vehicles that have been purchased according to state and federal procurement practices. The types of vehicles that have been procured by the state generally meet the needs of most transit agencies statewide, and also should theoretically standardize fleets among all transit agencies statewide.

2. The poor condition of the individual transit agency fleets is by and large due to the lack of federal funds needed to support new vehicle purchases, rather than the current state DOT driven procurement procedures

3. The wide variety of vehicle models at each agency not only causes excessive amounts of inventory of parts and supplies to be purchased and stored, but also increases the need for maintenance personnel to be trained in working with a variety of different vehicles.

4. The quality of vehicles available on State contract has come into question, prompting the desire by some operations to have the option to acquire vehicles through their own procurement process. This could provide more flexibility in configuration while still allowing operators to lease directly from the State if they wish too.

Conclusion:
The states' decision to solicit and manage all acquisitions and fleet leases for all sub-recipients has two clear benefits.

1. It eliminates the need to manage a procurement process locally that can be time consuming and lengthy. Oftentimes with limited staff available, it can be difficult for a transit agency to procure vehicles that meet state and federal procurement requirements.

2. It provides for quick access to vehicles through a "purchasing schedule " *(FTA uses the term "state or local government purchasing schedule" to mean an arrangement that a State or local government has established with several or many vendors in which those vendors agree to provide essentially an option to the State or local government, and its subordinate government entities, to acquire specific property or services in the future at established prices)*.

Conversely, if vehicle procurement was done by the individual transit agencies, the benefits could include: the ability to procure vehicles and equipment based upon the needs specific to the transit agency for local fixed route service and commuter or regional service needs; and purchasing vehicles specific to local demographics and geography. The physical demand on equipment can provide many other benefits as well such as:

1. Prepare a procurement based upon the agency's timeline and need for vehicles.
2. Develop solicitations tailored to individual service routes and ridership needs.
3. Develop solicitations tailored to the geographical demand on equipment.
4. Standardize fleets through joint procurement and option contracts.
5. Have access to the shortened procurement process of a state contract.

All agencies agree that the current MaineDOT procurement process for acquiring equipment may have administrative benefits by not having to manage federal procurements locally. Some transit operators would like to have the option to procure their own vehicles in addition to the state lease option. Allowing for a more hands on approach to vehicle configuration may offer peripheral benefits that could outweigh the burden of managing the federal procurement process at the local level.

VIII – STAFFING NARRATIVE

The administrative, maintenance, and support staffing of the agencies (non-driver related staff) involved in the study is integral to the execution and efficiency of services. Understaffed organizations experience elevated levels of employee stress and turnover, unmet deadlines, inability to expand, and diminished customer service. While overstaffing can lead to under inefficiency and unnecessary infrastructure to meet demands in order to make payroll requirements.

Part of the assessment involving existing conditions is an evaluation of current in-place staffing, their skill levels, and ability to perform their duties and maintain an adequate level of customer service.

As part of the existing conditions assessment, an evaluation of each agency's staff in terms of quantity, skill level, and overall functionality in the ability to not only perform their duties, but also maintain customer service, will be determined.

South Portland Bus Service (SPBS)

The administrative and support staffing at South Portland Bus Service consists of a Director, an Operations Supervisor, and a Mechanic.

The Director's work assignments include management and oversight of all staff, and substituting as needed, in all aspects of the agency's daily functions. These functions consist of assigning buses to drivers, coordinating with other agencies and departments, payroll, accounting, record-keeping, supervisory responsibilities, field operations, coordinating maintenance, answering phones, handling complaints, and dispatch.

The Operations Supervisor work assignments include, assigning buses, coordinating with other agencies and departments, payroll, billing, record-keeping, supervisory responsibilities, field operations, coordinating maintenance, answering phones, handling complaints, and dispatch.

The Mechanic's skill set consists of a non-specialized nature (a position in which a mechanic rotates among many specific technical areas requiring skills in a range of expertise). Current responsibilities include the regular maintenance of 12 buses and the maintenance of a small facility with three (3) service bays and a wash bay. SPBS is in the middle of a fleet transition and expects to dispose of five (5) buses in the near future.

South Portland Bus Service is currently understaffed due to the existing conditions of their aging fleet, equipment, and facility and the need to provide increased maintenance needs. The increasing level of vehicle and equipment maintenance needs requires staff to be pulled from their regular, daily required duties to manage situations as they arise. This creates a situation in which SPBS staff is shorthanded causing work delays to normal work assignments.

Shuttlebus-ZOOM

The administrative and support staffing at Shuttlebus-ZOOM consists of an Executive Director, Fleet Manager, an Executive Assistance, two (2) Temporary staff, and three (3) Mechanics.

The Executive Director's work assignments include management and oversight of all staff, and filling in as needed in other staff daily work duties functions. These daily functions consist of a variety of roles to be fulfilled that are normally handled by supervisory and support staff. Daily workload consists of assigning buses, coordinating with other agencies and departments, supervisory responsibilities, field operations, coordinating maintenance, answering phone, handling complaints, and dispatch.

The Fleet Manager's work assignments include supervisory responsibilities, field operations, coordinating maintenance, coordinating road service, assigning buses, and maintenance record-keeping.

The Executive Assistant work assignments include, assigning buses, coordinating with other agencies and departments, payroll, billing, record-keeping, field operations, coordinating maintenance, answering phones, handling complaints, and dispatch.

The work assignments of Temporary Support Staff are required for general support in non critical assignments such as cleaning, organizational needs, lifting, and general assistance of daily activities.

The Mechanic's skill set is of a non-specialized nature (a position in which a mechanic rotates among many specific technical areas requiring skills in a range of subjects). Current responsibilities include the maintenance and upkeep of 18 buses and a small facility with 5 maintenance bays and a wash bay.

Shuttlebus isn't currently understaffed, but staff time is stretched thin due to the existing conditions of their aging fleet, equipment, and facility. The affects of equipment breakdowns are pulling staff from daily required duties to manage situations as they arise, causing Shuttlebus to seek temporary assistance to avoid being shorthanded. Still the organization of the garage and duties of staff is suffering from these conditions and the cost associated with the need to bring on temporary staff is a financial burden on the agency's budgets.

Town of Scarborough

Although the Town of Scarborough facility is not officially associated with the study, their maintenance staff skill levels were assessed for the purposes of possible future collaboration. The town currently employs a maintenance staff consisting of eight mechanic's, with skill sets of a non-specialized nature, and who rotate among many specific technical areas requiring a variety of skillsets. The primary responsibility of the maintenance staff is routine maintenance and repairs of all of the Department Public Works vehicles, as well as maintaining the facility with eleven (11) service and maintenance bays, and a wash bay. The Town of Scarborough facility is in excellent condition, and is well staffed. The good condition and size of the facility lends itself to providing the agencies with high levels of service capabilities, in routine vehicle service as well as heavy maintenance. Existing equipment and accommodations offer the ability to provide excellent vehicle service rather than having to deal with facility repairs, and service equipment breakdowns. While this cannot alleviate the aging fleet conditions of the individual agencies, the Scarborough facility does offer relief by having a newer facility.

The Town of Scarborough does not appear to be understaffed in both maintenance and admin capacity, but should collaboration be explored, the existing staff may offer levels of expertise that

become part of the negotiation. This could possibly eliminate some of the current outsourcing of maintenance services, offering further financial efficiencies and ultimately cost savings.

York County Community Action Corporation

The York County Community Action Corporation (YCCAC) does not maintain vehicles, have a maintenance staff, or wish to participate in facility relocation. Therefore, an assessment of supporting staff for maintenance purposes is not necessary. However, they do outsource maintenance services, and any collaboration achieved in relocation will have affects on their staff's travel and downtime. For the purposes of the existing conditions assessment, the staff addressed will include the drivers, since this agency does not have mechanics.

Currently transit vehicles are maintained by Shuttlebus under an annual contract. Many repairs are same day services in which the drivers will stay on site until the repairs are complete, and then continue on with their service.

The current distance to Shuttlebus is up to 30 minutes one way, accounting for 1 hour in round trip travel time plus time for the repair. This is currently an acceptable amount of downtime for the YCCAC, and a service contract they are pleased with. If relocation occurs, the final location and the impact on travel and driver downtime will be looked at carefully. Possible relocation to the Town of Scarborough is not viewed as a favorable condition for the YCCAC. This is because it will extend the travel time between 1 to 1 ½ hours total to travel to Scarborough, as opposed to the thirty minute travel time to Shuttlebus. The YCCAC will be looking to the overall negative affects on their services in this collaboration, and any overall benefits, if any, coordination will provide.

Regional Transportation Program

The administrative and support staffing at the Regional Transportation Program consists of two (2) Executive Management, four (4) middle management positions, and sixteen (16) administrative and support staff. In addition they have 3 fulltime mechanics of varying skill levels on staff.

The Executive Management work assignments include management and oversight of all staff, management of finances and contract management.

Middle Management work assignments include supervisory responsibilities, field operations, coordinating maintenance, coordinating road service, contract management, and general program administrations.

Administrative and Support staff work assignments include, assigning buses, coordinating with other agencies and departments, payroll, billing, record-keeping, field operations, coordinating maintenance, answering phones, handling complaints, and dispatcher.
The Mechanic's skill sets are both specialized and non-specialized in nature (position of specific skills and those in which mechanics rotates among many specific technical areas requiring skills in a range of subjects). Current responsibilities include the maintenance and upkeep of 42 vehicles and a small facility with 5 bays.

Regional Transportation Program isn't currently understaffed, and seems to have a very successful maintenance program indicated by an aging fleet being maintained in a fashion capable of service delivery with little stress on current staff. However, with an aging fleet the affects of vehicle

breakdowns will likely increase pulling staff from daily required duties to manage situations as they arise. Addressing new vehicle needs is a priority for RTP, similar to the other transit agencies.

Conclusion:
Individually, the agencies are struggling to keep up with service, maintenance, and support of their equipment, predominantly due to age and condition. Overall, the group would appear to have appropriate levels of maintenance and support staff in a consolidated effort to maintain fleet, equipment, and facilities in a state of good repair. The partnerships that can be achieved in a consolidated maintenance facility, and the resulting cost savings potential can produce efficiencies in maintenance and administrative delivery, lessen the stress of budget constraints, help avoid services cuts or fare increases, and ease lay-off concerns.

IX - DISPATCH AND COMMUNICATIONS

Vehicle dispatch is currently handled by all agencies through various technologies. Below is a chart offering a side by side view of these technologies and their administration followed by agency narratives. York County Community Action Corporation is not looking to participate in a shared facility therefore was not part of this assessment.

	South Portland Bus	Shuttlebus-ZOOM	Regional Transportation Program
Computer Aided Scheduling & Trip Planning	None, phone dispatch only	None, phone dispatch only	Yes
Vehicle Dispatch	Yes	Yes	Yes
Total Personnel	3	1	9
Personnel Cost	$30,000 + Fringe	$35,000 annual	$260,000
Staff Expertise	Administrative, no client specific trip generation.	Administrative, no client specific trip generation.	Administrative, no client specific trip generation.
Facility Description	Office Separate	Office Separate	Office Separate
Hours of Operation	M-F 5:00 am-11:15 pm SAT. 6:40 am-6:53 pm	M-F 6:00 am-12 am	M-F 8:00 am- 4:30 pm
Annual Rides	220,000	180,000	138,000
Vehicles Dispatched	12	21	38
Scheduling & Trip Planning Technology	None	None	StrataGen Systems
Dispatch and Radio Technology	Motorola (New) Radio & Cell Phone	Motorola 2-Way Radio & Cell Phone (Approx 10yrs old)	Motorola 2-Way Radio & Cell Phone (2-5 yrs old)

Agency Dispatch Narratives

South Portland Bus Service – manages vehicle dispatch with the use of Motorola technology. SPBS operates Fixed Route Services only, with Paratransit Services performed by the Regional Transportation Program (RTP). Therefore, in-house vehicle dispatch is predominantly used for fixed route related services, general communications with drivers, and location of disabled vehicles or

drivers needing assistance. Dispatch functions are handled by roughly 3 people who also perform other duties. A "Utility" bus driver is the primary dispatcher; the Operations Supervisor and Transportation Director serve as back-up when needed.

Shuttlebus-ZOOM - manages vehicle dispatch with the use of Motorola Two-Way Radios and cell phone technologies. Shuttlebus runs Fixed Route and Demand Response services and offers "Route Deviated Service" as a way to meet current ADA requirements. Route Deviation requires advance reservation and is a premium service that can demand a premium fare if so desired. Shuttlebus currently has one (1) administrative employee managing this function with assistance by other staff as needed.

Regional Transportation Program (RTP) – manages vehicle dispatch with the use of Motorola Two-Way Radios and cell phone technologies. RTP provides Demand Response service as the regional provider in Cumberland County and provides Paratransit Service for South Portland Bus Service and the Greater Portland METRO to offer them assistance in meeting ADA requirements. RTP currently has nine (9) administrative personnel managing this function.

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York County Community Action Corporation (YCCAC) – YCCAC will not be collaborating in a joint facility or trip scheduling consolidation effort. Therefore, for purposes of this exercise, no information was provided.

Computer Aided Scheduling and Trip Planning:

South Portland Bus Service – Does not possess Computer Aided Scheduling and Trip Planning.

Shuttlebus-ZOOM – Does not possess Computer Aided Scheduling and Trip Planning.

Regional Transportation Program (RTP) - Only the Regional Transportation Program (RTP) currently has computer aided Scheduling and Trip Planning technology that can offer dispatch and trip scheduling capabilities. RTP has a technology designed and distributed by "StrataGen", a provider of single source Intelligent Transportation Systems (ITS) solutions for transit operators. StrataGen's integrated hardware and software solutions offer at least efficiency gains compared to conventional systems in the market. StrataGen is a product similar to other notable names such as Route Match and Trapeze. This current product is approximately 6-8 years old and has a proprietary nature that will most likely create sole source procurements. This can hinder the integration of other ITS technology such as Automatic Vehicle Locators (AVL's), Mobile Data Transmitters (MDT's), and other desired transportation technologies.

York County Community Action Corporation (YCCAC) – The YCCAC will not be collaborating in either a joint facility, or trip scheduling consolidation efforts. Therefore, for purposes of this exercise, no information was provided.

Conclusion

The existing technologies of the stakeholders are sufficient for the management and delivery of services. However, more current technologies exist that could offer further efficiencies, utilized resources more effectively, and streamline operations and administration.

If the stakeholder's decide to bring partners together in an effort to explore cost savings methodologies, then future growth to a centralized call center and acquisition of emerging transit service technologies should be a consideration of that future plan. Both can have a positive impact on both service operating efficiency and customer service.

Agency collaboration regarding scheduling, trip planning, and dispatch is becoming more prevalent nationwide to combat rising costs and low staffing levels. Transit providers are experiencing their number of ride requests grow, and this trend will continue as more baby boomers reach their senior years. Coordination of activities once considered insurmountable due to barriers between agencies, is now becoming a common practice, and offers a way to share costs rather than shoulder them as individual financial burdens. The consolidation of these activities can offer cost savings, program and administrative efficiencies, and increased awareness of available services.

X – EXISTING CONDITIONS SUMMARY

Based on the research associated with the preceding sections, this summarizes the existing limits and barriers that face the study partners of the Southern Maine Regional Transit Coordination Study.

Key Discoveries

Facility Use – Aging facilities, expansion constraints, and growing costs associated with daily vehicle maintenance are the major factors in the initiation of this study. Six locations are staffed with a total of twenty-nine (29) administrative and seven (7) maintenance staff. All agencies are faced with the challenge of meeting required service delivery in facilities that are beyond their useful life, contain services that have exceeded their capacity, and are in a state of disrepair, ultimately leading to inflated annual maintenance costs. The logical benefit of a collaborative effort is both prudent and fiscally responsible.

Elevated Fleet Costs - With a large majority of vehicle fleets at or beyond their useful life extraordinary measures to keep a useable fleet on the road is being implemented. Those measures include retainage of excessive vehicle fleets and unanticipated staff time to address the unexpected vehicle out of service issues. The costs associated with these unforeseen occurrences as well as the expected general maintenance and upkeep that goes hand in hand with vehicles of this age and condition has become close to unmanageable. The outlook, if some relief in the form of improvements to equipment doesn't occur soon, is financially concerning.

Mobility – Management has stated, limits to mechanically sound vehicles have caused the carrying of excessive fleets beyond the suggested FTA 20% Spare Factor, and taking into account the FTA Small Fleet exemption , the agencies in this study would not normally be carrying this many vehicles in their rotation. Daily mechanical breakdowns are calling on maintenance and administrative staff to address immediate problems of stranded riders, vehicle towing, and a rotating fleet to maintain on-time performance standards and customer satisfaction.
Excessive Fleets – With each agency carrying excessive vehicles in their fleet to cover for vehicles that are out of service due repair needs, has elevated expenses of nonessential charges like insurance and registration that under normal conditions would not be incurred costs.

Safety – Public and agency bus service priorities are to provide useful service destinations at an economical fare, when applicable, that offers adequate accommodations that meet the special needs

of seniors and individuals with disabilities in a safe, reliable, and friendly atmosphere. Safety is a top priority that cannot be compromised. When a fleet has aged past its useful life and equipment begins breaking down more frequently, equipment unreliability elevates passenger safety concerns. When on-time service and reliability is compromised, the agency and their customers are adversely affected. This is a position all agencies are approaching or have already found themselves in. As stated in the needs assessment, an initial investment ranging in the tens of millions is required to get agencies and their equipment back to a state of good repair.

Technology and Training – All providers have varying levels of software and two-way technologies that manage administrative, dispatch, and maintenance functions. Mechanic's skill sets are diverse to the many vehicle repairs and preservation required to keep equipment working and vehicles in service, however, outsourcing of heavy duty work is prevalent. In a collaborative effort potentially leading to consolidation, these technologies should be streamlined, and skill sets structured and expanded on. Training of staff to expand their skill sets and learn new technologies will be required. This would be an initial investment with fiscal benefits down the road.

Location and Land Use – A consolidated location, if elected, will create both opportunities and concerns. One such concern is that YCCAC and RTP would have difficulty making a move in the vicinity of the Town of Scarborough due to logistical reasons. South Portland Bus and Shuttlebus would find fiscal benefits in such a move, alleviating both aging facility concerns and local match burdens of new construction. South Portland Bus has an expandable location that could offer possible land donation as a match opportunity, but their northern most location is not attractive to all partners. Ultimately a shared maintenance facility is just that, a maintenance facility, and location while important, can offer all providers a quality maintenance option even if peripherally from administrative locations.

Inadequate Resources – The existing conditions of equipment is ultimately due to the inadequate presence of necessary federal, state and local resources. Providers are operating on limited budgets, unable to dedicate resources for necessary upgrades and improvements to services so aging equipment can be maintained. Staff time and duties are affected by managing situations arising from mechanical breakdowns causing daily responsibilities to be delayed. Finally, decisions on service cuts and fare increases are being discussed to maintain local budgets.

Purchasing – Limiting purchasing opportunities to only the State contract has restricted local agencies from procuring their own equipment. The consensus is that the MaineDOT bus contract is headed in the right direction to assist in standardizing fleets and streamline costs, but the opportunities to self procure, should be seriously considered to secure better built equipment appropriate for individualized agency service delivery and meet customer needs

CHAPTER III

PEER REVIEW

Peer Analysis

In order to gain a better understanding of maintenance needs and potential consolidation of services to achieve efficiencies, a peer analysis was conducted. The comparison of other providers who chose to undertake similar efforts to gain efficiencies and effectiveness of shared maintenance initiatives can assist in best practices and increased benefits.

This system-level analysis can help identify weaknesses, strengths, cost effectiveness and service efficiency, maintenance productivity, and service coverage. The understanding gained through this evaluation will assist the project team in development of recommendations.

TOMPKINS CONSOLIDATED AREA TRANSIT (TCAT), NEW YORK

History

Tompkins Consolidated Area Transit (TCAT) was formed in 1998 by consolidating three public transit systems Ithaca Transit (City of Ithaca), TOMTRAN (Tompkins County), and CU Transit (Cornell University) into a single system.

In the 1960s the City and Cornell established independent bus systems which expanded throughout the next two decades. In 1974, services were established under contract with a private provider to operate limited service for Cornell students, and as the public demand for service increased, assistance from local governments and Cornell University was sought.

In 1976, a consortium of municipalities and human service agencies formed "Gadabout Transportation Services" to address travel needs of seniors and people with disabilities and today operates the federally mandated Para-transit service for Tompkins County.

Tompkins County became involved in supporting suburban routes in the 1980's, and in developing their rural transit service, the formation of TOMTRAN to extend fixed-route bus service to outlying areas was the result.

As transit systems and fleets continued to expand and grow, so did the costs of operating transit service. This placed financial strain on both the systems and the local government. The need for better collaboration among the various providers operating, dispatching and maintaining services from different locations was evident. With all services having a common mission, bringing down costs, increasing efficiencies, and promoting awareness of service could be better achieved through collaborative and coordinated efforts.

Awareness of growing services moved the acceptance of Interim County-wide Transportation Plan in June of 1980. Planning and research ensued and partnerships were created over the next decade. In 1990 a resolution for the acceptance of conceptual design for a "Joint Transit Maintenance Facility" was adopted by the Tompkins County Board of Representatives. In1992, the City, Cornell and the

County built a $5 million transit facility in which to base transit operations and fleet maintenance from. This included Gadabout Transportation who did not join TCAT, but are still closely related, with Gadabout leasing space and maintenance services from TCAT. In 1996, TCAT was created as a joint partnership, governmental entity, and on April 1, 1998, the City of Ithaca, Cornell University and Tompkins County established TCAT as a joint venture (Public entity) to operate public transit service in Tompkins County. Service began in 1999, establishing a unified route and fare system, and shared maintenance practices. TCAT re-organized itself as a 501(c)(3) nonprofit corporation, TCAT. Inc. in 2005 with representatives of City of Ithaca, Cornell University, and Tompkins County serving on its Board of Directors.

TCAT today operates and maintains thirty-six bus routes and a fleet of approximately 50 transit buses all wheelchair accessible from their Ithaca based facility. They coordinate services with the assistance of robust scheduling and dispatch technology, and maintain approximately 15 vehicles through a shared maintenance contract with Gadabout Transportation Services. TCAT has an approximate annual budget of $12,000,000 to provide both suburban and rural transit service.

CITY OF ROCHESTER, MINNESOTA

History

A fleet and maintenance facility consolidation evaluation was conducted for the City of Rochester, MN. The purpose was to evaluate the most favorable process for the consolidation of the City's transit fleet and public works services. The evaluation was driven based on the need for additional maintenance and storage space for both the public transit and public works operations due to increases in fleet and limits of existing facilities. An assessment of the costs and benefits of consolidation to gain operating efficiencies was performed.

The approach was to assess the size of fleet to be maintained, amount of work to be performed, work force skills, and hours of operations. Quantifying the needs was achieved through analysis, interviews with key stakeholders, estimates for staffing requirements, and observation of existing operations.

Several scenarios were to be presented for consolidation alternatives taking into account maintenance operations, facility layout, construction estimates, analysis of costs and benefits of consolidated vehicle maintenance.

Existing Conditions

Current operations are managed on a decentralized basis by multiple organizations including the City owns 44 Transit bus fleet. The City spends millions of dollars per year for maintenance and operation of all fleets.

In all, six (6) City agencies and two private organizations manage and operate a total of 32 full time employees engaged in fleet maintenance use 43 bays (34 for maintenance), 9 wash bays and multiple

styles of lifts for all services. The plans were for the city to sell their existing site and relocate fleet maintenance and other Public Works activates to a
new consolidated site to share services and create efficiencies and economies of scale.

Transit Agency Involvement

The Rochester City Bus Lines (RCL) - operates the City's fixed route buses. It operates maintenance and storage facility built in the 1960's located at 1825 North Broadway. The facility contains nine maintenance bays and a wash bay. Storage capacity for 33 buses, a capacity it had exceeded and no possibility for expansion.

The Rochester Transportation Systems (RTS) - operates the City's demand response service and has a high bay storage/maintenance facility that is located near the airport. The facility accommodates ten vehicles for servicing with three floor mounted lifts.

Consolidation Scenarios

Several potential consolidation scenarios involving combinations of the Transit, and other agencies services were assessed. Determinations found to maintain current fleets; about 18 mechanics and 25 work bays would be needed to maintain the City owned for Utilities and Transit operations. A two shift operation would need only 13 work bays. Further reduction in mechanics and bays could be realized if only Transit and Municipal fleets were consolidated.

Cost Estimates

Costs for a new consolidated maintenance facility was determined based on constructing a facility containing 16 work bays and two wash bays, and a fueling station having building dimensions of 276 ft. wide by 106 ft. deep by 28 ft. high totaling 29,300 sq. feet.

Estimated costs, excluding site development and 10% contingency was $9.4 million ($4.9 maintenance, $3.5 storage, $ 0.8 wash, $ 0.2 fuel).

The most logical area for consolidation was with the Public Works and Transit fleets, since both need additional fleet maintenance and repair capacity. The Transit fleet is growing and has outgrown its existing facility. Estimates put City savings around $186,400 per year if it were to consolidate City and transit maintenance operations. Other benefits include: use of user friendly fleet management and inventory software; shop performance and the fleet lifecycle monitoring, and possible transit route and cost efficiency through collaboration from single location.

LOS ANGELES COUNTY MTA, CALIFORNIA

History

With the existing Metro Green Line's maintenance and storage facilities reaching capacity, the Los Angeles MTA is not able to accommodate additional vehicles needed to support new services. In the past, new construction of maintenance and storage facilities has always followed an individualized project approach no matter their size. All facilities require common elements such as storage, maintenance and service, wash capabilities, and a cleaning platform. With efficiencies in capital development and operations required a consolidated development strategy is needed to encourage support.

At the time the Long Range Transportation Plan included three new corridor projects that would be operated by three separate transit agencies, all in support of the Metro Green Line. These three transit agencies all have a need for new maintenance facilities which presented an opportunity for a consolidated maintenance facility site serving the four entities instead of four separate sites.

Some implications included the need accelerate funding, board approval of preferred alternative, gain approval of funding and order to proceed with construction.

Alternatives

Option 1 - Build a new or expanded maintenance facility for each provider.
Option 2 – Build a consolidated facility to house all providers.

Option 1 was not the recommendation since this option took four projects that are closely related, to build several smaller facilities. It was deemed considerably more expensive than a single larger facility, required much more land acquisition, as well as additional administrative and support needs.

Benefits

Approval of the recommendations would reduce overall cost and will allow services to operate more efficiently. A consolidated maintenance facility, built and shared among all providers, would naturally experience cost savings compared to a scenario where each provider would have to maintain and pay duplicative costs for their own facility.

Financial Impact

The sharing of common expenses such as construction, land acquisition, utilities, and common equipment needs reduces significant the amount of duplication of purchases that achieve the same mission. Other possible efficiencies could include joint procurement opportunities, shared service delivery opportunities, and fleet and staff economies.

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CHAPTER IV

COST BENEFIT ANALYSIS

A cost benefit analysis is performed to ascertain how successful, or how unsuccessfully, a plan of action will transpire. Commonly performed through financial analysis this cost benefit analysis will also take into account affects on staff time and equipment use. The affects of positive and negative impacts are identified, quantified, and evaluated against the current costs with the difference between the two indicating if an action is prudent.

The Cost Benefit Analysis of the four study partners, the Regional Transportation Program (RTP), The York County Community Action Corporation (YCCAC), the Shuttlebus-Zoom, and the South Portland Bus Service (SPBS) is based upon the desired levels of participation as expressed by the individual agencies and outlined below.

Regional Transportation Program (RTP) – Level of interest includes participation in a shared maintenance facility predominantly as an external stakeholder. This means that the RTP's interest in a centrally located facility is unlikely due to high daily volume of walk-in traffic to contend with, and centrally relocating the agency would pull them farther away from their core ridership. This would make any move further to the south less practical. However, levels of consolidation will not be ruled out, and the cost savings RTP could potentially accrue will be assessed and presented as an alternate version of each category.

Economies of scale that can be achieved beyond actual consolidation to a central facility can be done through collaboration of outsourced maintenance needs, centralized parts acquisition and storage, vehicle staging and fueling opportunities, and advanced software technologies. These potentially coordinated efforts would be of interest to RTP.

York County Community Action Corporation (YCCAC) - Level of interest includes participation in a shared maintenance facility predominantly as an external stakeholder. Essentially the YCCAC's interest in a centrally located facility is for maintenance outsourcing purposes only. As the southeastern most provider of service within the study group, any central location considered feasible would pull them further from their core ridership and would not fit within their overall agency mission.

Although YCCAC does not have a maintenance program within their organization; they manage this activity through various outsourced maintenance contracts. Economies of scale that can be realized in outsourcing of maintenance needs through a centrally located facility would be of interest to the YCCAC. Further economies of scale that collaboration of centralized parts acquisition and storage, and vehicle staging and fueling opportunities can offer, will also be evaluated.

Shuttlebus-Zoom - Level of interest includes full participation in a shared maintenance facility, and an external stakeholder in any realized cross collaboration opportunities. Therefore, Shuttlebus-Zoom is interested in a possible move to a centrally located facility if a viable opportunity presents itself. As an agency that is currently centrally located among the four study partners, a new central location would be feasible because it would not have a detrimental affect on their core ridership, service area, or agency mission. Shuttlebus-Zoom will further consider economies of scale that can be achieved in collaboration of centralized parts acquisition and storage; advanced technologies that can improve current scheduling, planning and dispatch activities; and vehicle staging and fueling opportunities.

South Portland Bus Service (SPBS) - Level of interest includes full participation in a shared maintenance facility, and an external stakeholder in cross collaboration opportunities. Therefore, SPBS is interested in a possible move to a centrally located facility should a viable opportunity present itself. While SPBS is located near the northern most location of the study zone they are comfortable with a move that may take them further south as they do not see it as detrimental to their core ridership, service area, or agency mission.

SPBS will further consider economies of scale that can be achieved in the collaboration of centralized parts acquisition and storage, advanced technologies that can progress current scheduling, planning and dispatch activities; and vehicle staging and fueling opportunities.

Summary Chart

The summary chart below is to provide a brief overview of existing equipment at time of review, including some overall characteristics, including a brief narrative on frequency of maintenance.

Equipment Type	Total Equipment	Median Age	Median Useful Life	Average Age	Average Useful Life	Percent At/Past Useful Life
Fleet	74	9	7	9	8	66%
Facility	2	---	---	65	30	100%
Lifts	2	---	---	11	15	50%
Service Vehicle	2	---	---	12	5	100%
Software	4	4	5	4	5	50%

The cost of maintaining the above facilities and equipment in 2010 was $1,375,288. The frequency "Preventative Maintenance" (PM) was in line with manufacturer recommended intervals. The frequency of maintenance for repairs averaged weekly (considered up from past years although not a tracked statistic so only an assumption), and is attributed to age and an elevated number of vehicles retained.

Based upon agency desired participation levels as described above, the categories evaluated within the cost benefit analysis are as follows:

1. Maintenance Salaries, Wages, and Fringe
2. Facility Expenses
3. Utilities
4. Parts and Supplies
5. Contracted Services
6. Vehicle Staging
7. Facility Consolidation (New & Existing)
8. Dispatch Salaries, Wages, and Fringe
9. Advanced Technology

1) ***Maintenance Salaries, Wages, and Fringe***

The maintenance expenses dedicated to salaries and wages for the study group's core staffing included eight (8) full time mechanics, and four (4) Management and Administrative staff totaling $511,587 in maintenance salaries, wages, and fringe. YCCAC does not have dedicated maintenance staff, therefore is not included in these numbers.

Total Agency Breakdown:

Agency	Staff	Admin-Maintenance	Staff	Mechanics	Fringe	Total
Shuttlebus-ZOOM	2	$50,094	4	$194,506	$0	$244,600
South Portland Bus Service	1	$4,135	1	$51,248	$17,763	$73,146
Regional Transportation Program	1	$15,000	3	$127,136	$51,705	$193,841
York County Community Action Corporation	0	$0	0	$0	$0	$0
	4	$69,229	8	$372,890	$69,468	$511,587

In this section the salaries of Shuttlebus-ZOOM, South Portland Bus Service and RTP are assessed for potential financial efficiencies resulting from consolidation to a shared facility.
The maintenance expenses of the agencies combine to equal $511,587. This is a result of core staffing that includes 4 Management and Administrative staff. The administrative staff support stems from aging equipment and shortage of mechanic time to address the elevated level of breakdowns.

Management and Administrative Costs
These expenses equaling $69,229 are a potential savings to the maintenance budget, but not the overall agency budget because staffing will remain in an administrative and management capacity. The benefit is in alleviating the strain on the maintenance side, and allowing administrative and management staff to concentrate on their related job duties. This can be achieved in two ways, first with the replacement of equipment long past its useful life and second with a consolidated location offering opportunities to streamline and coordinate maintenance needs more easily. The net result is administrative and management staff can re-direct their focus to performing their related job duties more effectively and efficiently. That can increase the quality of service delivery and customer satisfaction.

AGENCY	SPBS	SHUTTLEBUS	RTP	YCCAC	TOTAL
POTENTIAL ANNUAL SAVINGS	**$4,135**	**$50,094**	**$15,000**	**N/A**	**$69,229**
NOTES	*Potential annual savings up to $69,229 in re-directed staff time away from maintenance related duties and refocused on their original job duties.*				

Mechanic to Bus Ratios:
Determining the necessary mechanic to bus ratio is difficult. Research of transit and school bus operations show agencies have mechanic/bus ratios ranging from 1/12 to 1/20. In the current Shuttlebus-ZOOM and SPBS maintenance practices the ratio is about 1/8. If the fleet was at a more realistic allowable fleet, closer to the federally suggested 20% spare factor, that number would be closer to 1/4 or 1/5. Shuttlebus-ZOOM also employs a Maintenance Supervisor whose salary of $53,000 will be backed out for this exercise. RTP's fleet is more in line with averages at about 1/12. With the understanding that a newer fleet would require fewer vehicles to deliver the same level of service, it suggests the current mechanic/bus ratio for the Shuttlebus-ZOOM and South Portland Bus

Service is over staffed at a current cost of $192,754. Realistically services could be maintained satisfactorily with a 1/12 ratio requiring only 2 mechanics or potentially two thirds (2/3) the current costs. RTP's staffing suggests it is appropriate for their current fleet make-up.

AGENCY	SPBS	SHUTTLEBUS	RTP	YCCAC	TOTAL
Allowable Fleet (non-seasonal only)	7	10	38	32 (buses only)	87
Mechanics needed based on 1/12 Mechanic/Bus Ratio.	1	1	3	2	7
Mechanics needed based on 1/12 Mechanic/Bus Ratio less YCCAC contract.	1	1	3	0	5
Mechanics Currently Employed	1	3	3	0	7
Total Salary	$69,011	$194,506	$178,841	0	$442,358
POTENTIAL ANNUAL SAVINGS	**$0**	**$129,670**	**$0**	**N/A**	**$129,670**
NOTES	*The potential annual savings of Shuttlebus is based on agency specific fleet. With the YCCAC fleet there is justification for carrying the extra staffing of Shuttlebus assuming the servicing of the YCCAC fleet remains an active contract of Shuttlebus.*				

Cost/Benefit Assessment: Maintenance Salaries, Wages, and Fringe

Of the scenarios above the potential benefits in staff re-direction/reduction and consolidation can offer potential savings to the maintenance budget of up to $198,899 annually. The possibilities of continued contractual work further leveraging revenues and increasing the mechanic/bus ratios could help justify maintaining additional staff.

2) *Facility Expenses*

The facility expenses for purposes of this section are defined as expenses directly related to maintaining, insuring, and furnishing the structure. Expenses used are based on the 2010 actual costs as provided by the operators. Expenses incurred in 2010 totaled $176,460 among three operators (Shuttlebus-ZOOM, SPBS, and RTP). YCCAC is not included in these numbers as they are participating only for purposes of outsourcing maintenance at this time.

The following chart is a line item breakdown of facility expenses by agency:

Facility Expense Category		**Shuttlebus**	**SPBS**	**RTP**
Facility Mortgage/Rent/Lease		$0	$0	$39,902
Facility Insurance		$4,772	$0	$1,200
Heating, Ventilation, and Air Conditioning (HVAC) Servicing		$7,951	$560	$0
Electrical and Plumbing Servicing		$7,233	$513	$0
Painting/Siding (Internal and External)		$0	$0	$0
Cleaning Expenses		$0	$1,717	$16,335
Carpentry		$0	$0	$0
Roofing		$0	$0	$0
Vehicle Exhaust System		$0	$0	$0
Appliances		$0	$0	$0
Training Equipment		$0	$0	$0
Renovations and Upgrades		$0	$0	$0
Maintenance Technology *(Computers, Printers, Hosting Fees, etc.)*		$6,100	$500	$82,358
Grounds Maintenance		$600	$0	$0
"Green" Initiatives		$0	$1,027	$0
Other		$0	$1,162	$4,530
Total		$26,656	$5,479	$144,325

1. Facility Mortgage/Rent/Lease
   Currently both Shuttlebus and SPBS own their facilities outright and have no annual Rent, lease, or mortgage. RTP has a rental agreement and could realize significant benefit from consolidation. Below are two assessments for occupancy under ownership or rent/lease scenarios.

Own

AGENCY	SHUTTLEBUS	SPBS	RTP	YCCAC	TOTAL
CURRENT EXPENSE	$0	$0	$39,902	N/A	$39,902
PROJECTED EXPENSE	$0	$0	$0	N/A	$0
POTENTIAL ANNUAL SAVINGS	**$0**	**$0**	**$39,902**	**N/A**	**$39,902**
NOTES	*Savings based on local match eliminating need for mortgage. This does not account for property tax.*				

Annual Rent/Lease *(based on a 26,800 square foot facility @ $5.25/Sq Ft)*

AGENCY	SHUTTLEBUS	SPBS	RTP	YCCAC	TOTAL
CURRENT EXPENSE	$0	$0	$39,902	N/A	$39,902
PROJECTED EXPENSE	$55,000	$55,000	$55,000	N/A	$0
POTENTIAL ANNUAL COST	**($55,000)**	**($55,000)**	**($15,098)**	**N/A**	**($125,098)**
NOTES	*Does not include costs associated with retrofitting needs*				

Annual Rent/Lease *(based on a 72,000 square foot facility @ $5.25/Sq Ft)*

AGENCY	SHUTTLEBUS	SPBS	RTP	YCCAC	TOTAL
CURRENT EXPENSE	$0	$0	$39,902	N/A	$39,902
PROJECTED EXPENSE	$122,500	$122,500	$122,500	N/A	$0
POTENTIAL ANNUAL COST	**($122,500)**	**($122,500)**	**($82,598)**	**N/A**	**($327,598)**
NOTES	*Does not include costs associated with retrofitting needs*				

2. Facility Insurance
   Shuttlebus insurance costs $4,772 annually for insurance on their facility. SPBS is blended in with all municipal buildings insurance; RTP costs are $1,200 annually. Comparable Property and General Liability Insurance costs for facilities having a capacity need similar to Shuttlebus, SPBS and RTP would require in consolidation is approximately $8,000 annually, which is slightly higher than current costs.

AGENCY	SHUTTLEBUS	SPBS	RTP	YCCAC	TOTAL
CURRENT EXPENSE	$4,772	$0	$1,200	N/A	$5,972
PROJECTED EXPENSE	$2,000	$2,000	$4,000	N/A	$8,000
POTENTIAL ANNUAL COST	**$2,772**	**($2,000)**	**($2,800)**	**N/A**	**($2,028)**
NOTES	*72,000 sq ft facility would be higher.*				

3. Heating, Ventilation, and Air Conditioning (HVAC) Servicing
   Costs associated with servicing the heating, ventilation, and air conditioning units totaled $8,511 in 2010 accounted for by Shuttlebus and SPBS. RTP leases their space and therefore was not responsible for upkeep which accounted for their $0 cost. In a facility consolidation these costs would reduce significantly to annual preventative maintenance costs, and in a future rental or lease situation would be built into the rental/lease agreement.

AGENCY	SHUTTLEBUS	SPBS	RTP	YCCAC	TOTAL
CURRENT EXPENSE	$7,951	$560	$0	N/A	$8,511
PROJECTED EXPENSE	$500	$500	$500	N/A	$1,500
POTENTIAL ANNUAL SAVINGS	**$7,451**	**$60**	**($500)**	**N/A**	**$7,011**

4. Electrical and Plumbing Servicing
   Costs associated with servicing the electrical and plumbing totaled $7,746 in 2010, accounted for by Shuttlebus and SPBS. Again RTP leases and therefore was not responsible for upkeep accounting for their $0 cost. In consolidation to a new facility these costs would reduce significantly to annual preventative maintenance costs, and in a future rental or lease situation would be built into the rental/lease agreement.

AGENCY	SHUTTLEBUS	SPBS	RTP	YCCAC	TOTAL
CURRENT EXPENSE	$7,233	$513	$0	N/A	$7,746
PROJECTED EXPENSE	$500	$500	$500	N/A	$1,500
POTENTIAL ANNUAL SAVINGS	**$6,733**	**$13**	**($500)**	**N/A**	**$6,246**
NOTES					

5. Painting/Siding (Internal and External)
   No costs associated with this line item, potential savings $0.

6. Cleaning Expenses
   Costs associated with cleaning services totaled $18,052 in 2010, with RTP accounting for $16,335 of the total. RTP maintains much more administrative office space and is subject to walk-in traffic requiring the consistency of cleaning services to maintain their business appearance. Shuttlebus and SPBS predominantly handle this function in-house accounting for their small total of $1,717. Both have much less office space and are not subject to walk-in traffic, therefore it is not a high priority. In a new or leased facility, designed to accommodate several operations, cleaning and maintenance could be more challenging and should be defined in an agreement. For Shuttlebus and SPBS it should be expected there will be a future cost associated with this on an occasional weekly and/or monthly basis.

   At a minimum, and assuming modestly, contracting for a small crew two days per month to clean only the administrative offices will cost roughly $500/month. That totals $6,000 annually, but is a reduction in what is currently spent.

AGENCY	SHUTTLEBUS	SPBS	RTP	YCCAC	TOTAL
CURRENT EXPENSE	$0	$1,717	$16,335	N/A	18,052
PROJECTED EXPENSE	$2,000	$2,000	$2,000	N/A	$6,000
POTENTIAL ANNUAL SAVINGS	**($2,000)**	**($283)**	**$14,335**	**N/A**	**$12,052**
NOTES					

7. Carpentry
   No costs associated with this line item, potential savings $0.

8. Roofing
   No costs associated with this line item, potential savings $0.

9. Vehicle Exhaust System
   No costs associated with this line item, potential savings $0.

10. Appliances
    No costs associated with this line item, potential savings $0.

11. Training Equipment
    No costs associated with this line item, potential savings $0.

12. Renovations and Upgrades
    No costs associated with this line item, potential savings $0.

13. Maintenance Technology
    The annual cost for maintenance technologies totaled $88,958 in 2010 for all agencies. These costs are associated with many items such as maintenance technology programs, MaineCare module upgrade, maintenance fees, and peripheral equipment like computers and printers. The majority of these costs were directly related to RTP services most of which are not integral. Maintenance fees of all operators account for approximately $5,000.

    SPBS and RTP both possess a software program by Ron Turley Assoc. (RTA) which is a scalable fleet maintenance program that helps an agency manage their fleet to assure safe and reliable service. This program is also capable of monitoring budget and operating costs, PM (Preventative Maintenance) scheduling, performance monitoring, inventory tracking, fuel consumption, fleet utilization, and driver reporting to name a few. Together both agencies pay approximately $1,500 in maintenance fees for the same product. SPBS is considering purchasing component specific technology in the near future.

    Shuttlebus possess a program called Filemaker Pro, generalized software less adaptable to maintenance needs than that of their study partners RTA program.

    From a maintenance technology standpoint there would be shared benefits to a singular web based technology that all operations could interface with, thus offering a singular maintenance package that all agencies could share in the cost of, and a singular reporting and tracking methodology that all could be trained and proficient in.

    An investment down the road to bring all operations into a united approach with a robust maintenance specific program would be a worthwhile venture. Considering the current technology is only few years old and a popular choice among the operators, finding opportunities for integration with existing software would be an advisable first step. Possible savings in a joint venture such as this would be minimal but costs that could be realized may be well worth it, making the potential savings $0.

14. Grounds Maintenance
    Costs associated with grounds maintenance was minimal totaling $600 in 2010, with Shuttlebus accounting for the total cost. RTP leases their space, and therefore was not a responsibility they have. In a new facility designed to accommodate several operations, the appearance of the grounds may be more of a priority. It should be expected there will be a future cost associated with this even if on an occasional weekly or monthly basis.

    At minimum, and assuming modestly, contracting for a small crew two days per month to mow lawns, plow, and tend to other landscape needs, agencies should anticipate a cost of $500/month. That totals $6,000 annually. With current expenses one tenth that, it is prudent to assume this will be an expense that increases in consolidation.

AGENCY	SHUTTLEBUS	SPBS	RTP	YCCAC	TOTAL
CURRENT EXPENSE	$600	$0	$0	N/A	$600
PROJECTED EXPENSE	$2,000	$2,000	$2,000	N/A	$6,000
POTENTIAL ANNUAL COST	**($1,400)**	**($2,000)**	**($2,000)**	**N/A**	**($5,400)**
NOTES					

15. Green" Initiatives
    This item accounted for only $1,027 in 2010. In a new facility built to current green standards costs associated with this line item shouldn't come into play.

AGENCY	SHUTTLEBUS	SPBS	RTP	YCCAC	TOTAL
CURRENT EXPENSE	$0	$1,027	$0	N/A	$1,027
PROJECTED EXPENSE	$0	$0	$0	N/A	$0
POTENTIAL ANNUAL SAVINGS	**$0**	**$1,027**	**$0**	**N/A**	**$1,027**
NOTES					

16. Other
    These are variable expenses that are undefined in nature and therefore will be assumed constant, making a potential savings $0. In 2010 $4,530 was spent on these variables.

Cost/Benefit: Facility Expenses

Of the sixteen line items above the potential benefits from varying levels of activity, coordination and/or collaboration in a shared use facility can offer potential savings to current facility expenses of up to $58,810 (through ownership). In rent/lease situations potential increases up to $106,190 (26,800 sq ft), and $308,690 (72,000 sq ft).

3) *Utilities*

The utility expenses for purposes of this section include phone, electric/gas, heat, internet, and other expenses. Expenses used are based on the 2010 actual costs as provided by the operators. Expenses incurred in 2010 total $104,969 among three operators (Shuttlebus-ZOOM, SPBS, and RTP). YCCAC is not included in these numbers as they are participating only for purposes of outsourcing maintenance at this time.

The Regional Transportation Program phone costs associated with this study will be considered constant due to the unique nature of their business and the individuality it requires. To assess this in a beneficial manner, Shuttlebus-ZOOM and SPBS will be the identified partners in a centralized phone network. RTP may still have opportunities to realize cost gains in phone service through collaboration of future software initiatives and common service functions.

The following chart is a line item breakdown of utility expenses by agency:

Utility Category		**Shuttlebus**	**SPBS**	**RTP**
Phone		$3,501	$1,943	$36,660
Electric		$7,181	$6,437	$14,009
Heat		$11,339	$6,173	$3,358
Internet		$4,300	$4,300	$0
Other building maintenance & grounds service contracts		$2,500	$505	$2,258
Total		$28,821	$19,358	$56,285

1. Phone

   Costs associated with phone service for purposes of this section will take into account charges incurred by Shuttlebus and SPBS. RTP will remain constant. Costs incurred in 2010 by Shuttlebus and SPBS totaled $5,444. Comparable costs for phone service of agencies the size of Shuttlebus and SPBS combined ranges around $6,000 annually. In consolidation to a new facility these costs would be minimally affected.

AGENCY	SHUTTLEBUS	SPBS	RTP	YCCAC	TOTAL
CURRENT EXPENSE	$3,501	$1,943	$36,660	N/A	$42,104
PROJECTED EXPENSE	$3,000	$3,000	$36,660	N/A	$42,660
POTENTIAL ANNUAL COST	**$501**	**($1,057)**	**$0**	**N/A**	**($556)**
NOTES					

2. Electric/Heat

   Costs associated with electric and heat service will take into account charges incurred by Shuttlebus, SPBS and RTP. Costs incurred in 2010 totaled $48,497. SPBS and RTP predominantly use natural gas for heating their facilities with electric circulators whose charges fall within the overall electric bill. SPBS also uses kerosene for their office space at a modest cost of under $1,000 annually. Shuttlebus uses Hot Water (Radiant) heat. Assuming a consolidated facility ranging from 25,000-30,000 sq ft, comparable (72,000 sq. ft. with RTP) costs for heat and electric service, including delivery can range around $55,000-$60,000 ($75,000-$100,000 with RTP) annually. In consolidation to a new facility that is looking to house vehicles out of the elements these costs would be greatly increased from the current level of square footage affected.

25,000-30,000 Square Foot Facility

AGENCY	SHUTTLEBUS	SPBS	RTP	YCCAC	TOTAL
CURRENT ELECTRIC EXPENSE	$7,181	$6,437	N/A	N/A	$13,618
CURRENT NATURAL GAS HEAT	$0	$5,423	N/A	N/A	$5,423
CURRENT KEROSENE HEAT	$0	$750	N/A	N/A	$750
CURRENT HOT WATER HEAT	$11,339	$0	N/A	N/A	$11,339
PROJECTED NEW EXPENSE	$30,000	$30,000	N/A	N/A	$60,000
POTENTIAL ANNUAL COST	**($1,480)**	**($7,390)**	**N/A**	**N/A**	**($28,870)**
NOTES					

72,000 Square Foot Facility

AGENCY	SHUTTLEBUS	SPBS	RTP	YCCAC	TOTAL
CURRENT ELECTRIC EXPENSE	$7,181	$6,437	$14,009	N/A	$27,627
CURRENT NATURAL GAS HEAT	$0	$5,423	$3,358	N/A	$8,781
CURRENT KEROSENE HEAT	$0	$750	$0	N/A	$750
CURRENT HOT WATER HEAT	$11,339	$0	$0	N/A	$11,339
PROJECTED NEW EXPENSE	$33,000	$33,000	$33,000	N/A	$99,000
POTENTIAL ANNUAL COST	**($14,480)**	**($20,390)**	**($15,633)**	**N/A**	**($50,503)**
NOTES					

3. Internet and Other Contractual Obligations

   Costs associated with internet and other contractual obligations in this section will take into account charges incurred by Shuttlebus, SPBS and RTP. Costs incurred in 2010 totaled $13,863. These are the variable expenses such as water, internet, and other charges undefined in nature and therefore will be assumed constant, making a potential savings $0.

Cost/Benefit: Utilities Expenses

Of the three line items above it is expected utility costs will increase, predominantly from the increase in square footage calling on electric, gas, and heat from current locations. In accounting for this increase it should be noted that peripheral benefits a new facility can offer of warmer vehicle starts and year round coverage from the elements can extend vehicle and equipment life and reduce future capital expenses. However, for purposes of this section, expectations are that utilities can increase approximately $12,059 for a facility totaling approximately 26,800 Sq Ft, or $51,059 for a facility totaling approximately 72,000 Sq Ft.

4) Parts and Supplies

Parts and supply expenses for purposes of this section include parts inventory for repairs, preventative maintenance, and retrofits, lubricants; doors and lighting; equipment rental/lease; and other miscellaneous. Expenses used are based on the 2010 actual costs as provided by the operators. Expenses incurred in 2010 total $510,154 among three operators (Shuttlebus-ZOOM, SPBS, and RTP). YCCAC is not included in these numbers as they are participating only for purposes of outsourcing maintenance at this time and their parts and supplies are currently absorbed by Shuttlebus. However, as their fleet is accountable in the purchase of parts in order to maintain vehicles their fleet is included in assessments.

The following chart is a line item breakdown of parts and supply expenses by agency:

Parts and Supplies		Shuttlebus	SPBS	RTP
Lubricants		$15,558	$7,047	$8,511
Parts		$139,611	$45,648	$93,963
Lighting and Signage		$0	$0	$0
Overhead Doors		$1,000	$1,000	$0
Hoses & Reels		$0	$0	$0
Water Heater		$0	$0	$0
Expansions and Retrofits		$0	$0	$0
Equipment Maintenance		$0	$0	$0
Equipment Rental/Lease		$0	$0	$0
Other		$172,370	$0	$25,446
Total		$328,539	$53,695	$127,920

1. Lubricants

   Costs associated with lubricants totaled $31,116 in 2010. Shuttlebus-ZOOM and SPBS has stated peak fleet needs in the area of 14 to 15 combined. The FTA suggested 20% spare factor indicates the need to carry approximately 18-19 vehicles combined, yet the actual total is 32. Conservatively speaking, if these agencies carried a 30% spare factor, they would only need roughly 20-21 vehicles to meet service needs, and allow proper rotation of equipment for preventative maintenance. RTP has not declared a peak fleet number, but have stated they are utilizing a fleet in excess of what would be needed under normal fleet conditions. The three agencies currently operate 70 vehicles between them.

   Because lubricants are a consistent PM requirement, the current Shuttlebus and SPBS fleet of 32 vehicles, less the conservative 30% spare factor equals out to a fleet of 20, or a difference of 12

(approximately 40%). Since RTP stated no peak fleet number we will evaluate as if they are carrying the necessary fleet.
Calculating the difference between the existing fleet total of 70 and the fleet size under normal conditions (56) possible annual savings comes to $9,938.

AGENCY	SHUTTLEBUS	SPBS	RTP	TOTAL
Actual Fleet (non-seasonal fleet only)	20	12	38	70
Allowable Fleet (non-seasonal fleet only)	11	7	38	56
Current Expenses (actual fleet)	$15,558	$7,047	$8,511	$31,116
Cost/Bus	$778	$587	$224	N/A
Potential Expenses (Allowable Fleet x Cost/Bus)	$8,558	$4,109	$8,512	$442,358
POTENTIAL ANNUAL SAVINGS	**$7,000**	**$2,938**	**$0**	**$9,938**

2. Parts, Doors and Other Supplies
The remaining costs under this category are general parts and supplies associated with typical inventory stock for short notice repairs, and preventive maintenance needs. Costs associated with these remaining items totaled $479,038 in 2010. This number represents nearly 35% of the overall maintenance budget of the study partners combined.

To assess this number we are calling on the industry standard performance indicator, "Maintenance Cost per Mile" (maintenance cost/mile). The chart below provides the maintenance cost/mile of Shuttlebus-ZOOM, SPBS and RTP based on their 2010 numbers. This number is derived from total maintenance costs, as provided on the maintenance costs spreadsheets completed earlier in the study by each agency, then divided by the total annual miles also provided earlier in the study by each agency.

Associated with these numbers is an average maintenance cost/mile compiled from research of transit agencies of a small urban and rural nature. This average cost/mile is then compared to those of the study partners to determine and review how each agency's costs compare.

Performance Indicators	Shuttlebus	SPBS	RTP	Industry Comparisons
Cost	$523,860	$202,047	$537,576	N/A
Miles	350,000	214,500	1,223,000	N/A
Maintenance Cost/Mile	$1.50	$0.94	$0.44	$ .50 -$ .75

Shuttlebus - expended $146,924 of the total $312,981 costs identified, by far the largest amount. The maintenance cost/mile of Shuttlebus is $1.50, or double the average. With replacement and improvements to existing vehicles and equipment the short term goal of Shuttlebus, then lowering the maintenance cost/mile should be the expectations. If Shuttlebus can meet the high end of the industry comparison ($ .75) then savings expectations could reach 50% less or $73,462 annually based on current statistics.

Cost	Potential % Reduction	Potential Annual Savings
$146,924	50%	**$73,462**

SPBS - expended $46,648 of the total $312,981 costs identified, with a maintenance cost/mile of $ .94, about 25% higher than average. With replacement and improvements to existing vehicles

and equipment the short term goal of SPBS, then lowering the maintenance cost/mile should be the expectations.

If SPBS can meet the high end of the industry comparison ($ .75) then savings expectations of could reach 25% less or $53,000 annually based on current statistics.

Cost	Potential % Reduction	Potential Annual Savings
$46,648	25%	**$11,662**

RTP - expended $119,409 of the total $312,981 costs identified, with a maintenance cost/mile of $ .44, below average. RTP's maintenance program has performed very well to keep costs in line with an existing fleet up in age. With replacement and improvements to existing vehicles and equipment the short term goal of the RTP, then being able to maintain their current maintenance cost/mile or even lower it further should be the expectations. For purposes of this section and considering the RTP's current performance indicator is better than average, the assumption will be no change, potential savings $0.

Cost/Benefit: Parts and Supplies

Of the line items above it is expected the costs of parts and supplies could be significantly reduced if improvements to vehicles, facilities, and equipment is implemented. The consolidation of services and sharing of maintenance practices can add further efficiencies to preventative maintenance programs, possibly offering additional cost savings. Based on findings, savings to lubricants, parts and supplies could be up to $92,184 annually.

5) *Contracted Services*

Contracted services is the outsourced work the study partners seek due to facility capacity constraints or the complex nature of work to be performed. Outsourcing can be very beneficial in meeting periodic maintenance needs without hiring additional staff and further burdening an operating budget. An example of this is YCCAC who outsources all their maintenance needs rather than staff a maintenance crew and equip a facility to perform the work.

The reason for evaluating current outsourcing is to determine what services, if any, could and would be performed in-house if changes were to occur in condition of equipment or process of maintenance delivery.

The chart below is an assessment of services outsourced by the study partners. A total of $258,538 was spent on these services in 2010.

Contracted Services		Shuttlebus	SPBS	RTP	YCCAC
Outsourced Vendor work do to capacity constraints		$76,859	$54,669	$11,496	$0
Bus Washing (Metro)		$0		$119	$0
Vehicle Towing		$0	$0	$3,590	$0
Contract with Shuttlebus		$0	$0		$111,805
Totals		$76,859	$54,669	$15,205	$111,805

Shuttlebus and SPBS – Together spent $131,528 on outsourced services in 2010. Both agencies have stated that this was predominantly work they choose not to do in-house even though the work is

within their mechanic's skill sets. Because the agencies don't have the capacity to balance mechanic's time for outsourced work the logic is to prioritize what is performed in-house versus outsourced. They further stated that about 25% of the maintenance outsourced is heavy duty related and may still require outside assistance.

A 25% outsourcing factor makes sense given the alternative of adding staff that would ultimately be under worked in a full time situation. However, in a consolidated effort with a streamlined approach to perform preventative maintenance and other necessary repairs, the mechanic's time and capacity issues could be relieved to an extent.

In assessing this cost a reference to the determination made earlier under the "Maintenance Salaries, Wages and Fringe" section of this cost benefit analysis should be reviewed. That section took into account industry findings of mechanic/bus ratios ranging from 1/12 to 1/20. It further determined that through efficiencies created through collaboration and consolidation, and improvements to fleet conditions, these agencies may have more than enough staff to meet maintenance needs. It further identified that a possible mechanic/bus ratio for Shuttlebus-ZOOM and SPBS more like 1/4 to 1/5 if their position changed to newer equipment, a more modest spare factor rating, and a consolidated approach.

Therefore, with a consolidated approach in mind and assuming the state of good repairs of existing equipment improves, the work load of current staff could be reduced by more than half. This would free up mechanics time to perform current outsourced work that is capable of being performed in-house. Secondly, if a consolidated facility in a central location is secured and that addresses capacity constraints it will help to streamline the process of maintenance delivery.

Under the right circumstances it is possible that current outsourced work and unnecessary dollars spent could be largely eliminated. With exception of heavy duty servicing that may be necessary to still send out, the capacity to balance time and effort and perform work in-house should be greatly improved. Since the assumption is the heavy duty work accounts for 25% of the outsourcing, and is generally more costly then routine servicing, it would not be reasonable to assume a 75% savings to current costs. For purposes of this section it would be sensible to assume up to 50% saving on outsourced work, with the knowledge that savings could increase as need to outsource decreases.

Cost	Potential % Reduction	Potential Annual Savings
$131,528	50%	**$65,764**

RTP – Outsourcing for the RTP was minimal in 2010 at $15,205, the majority being heavy duty repairs. Consolidation could possibly reduce outsourcing by about 50%. If a consolidated location is realized without RTP's participation then the current service's RTP outsources may be offered at this new location. This would then offer them another resource for outsourcing needs. Regardless of the outcome it would only change the location vehicles are serviced, still requiring outsourcing, and still at a cost. The possible cost savings would be determined by the best value they can get through vendor competition.

Cost	Potential % Reduction	Potential Annual Savings
$15,205	50%	**$7,603**

YCCAC – The YCCAC outsources all maintenance through a contract with Shuttlebus. In 2010 that contract totaled $111,805. YCCAC will continue to outsource their maintenance needs through the

most cost effective manner available. This will be assessed under two circumstances, first with opportunity to continue to have servicing at the current Shuttlebus location, and secondly at a new consolidated location.

Servicing at current Shuttlebus location – Should it be feasible and cost effective to maintain the current Shuttlebus location for vehicle staging purposes, the time and mileage incurred by YCCAC staff and fleet would remain unchanged. Therefore, costs associated with maintaining vehicles as per usual will remain consistent with past practices. Aside from any future contract negotiations or an increase in service needs we do not foresee any dramatic changes in cost, making the potential savings $0.
Servicing at a new Centralized location – Should it NOT be feasible and cost effective to maintain the current Shuttlebus location for vehicle staging purposes, the time and mileage incurred by YCCAC staff and fleet WOULD be affected. Therefore, costs associated with maintaining vehicles at a new location will have peripheral affects on both staff time and wear and tear on vehicles.

To assess this, first we will look at additional driver time involved with an estimated 75% of that time as overtime eligible. Secondly we will assess additional wear and tear and fuel costs associated with any extra distance resulting from the relocation.

1) *Driver Time (75% OT Eligible)* – This figure is based on 700 billable hours as reported by Shuttlebus in 2010. The average hourly rate for YCCAC drivers is $11.20 ($16.80 OT Rate). The actual number of service trips at an average roundtrip time of 1hr could not be ascertained, but the estimate was an average of three (3) round trips per week. Therefore we will assess on the assumption of 156 scheduled and unscheduled maintenance trips by YCCAC to Shuttlebus annually. Additionally, a centralized location will put an estimate of 30 additional minutes onto a trip, or an additional one hour round trip for YCCAC drivers and fleet. Therefore, with the above assumptions we assess this as follows:

   a) (3 trips/week x 52 weeks) = 156 additional person hrs @ $11.20/hr.
   This is based on 25% of those hours at regular time equaling an additional $ 437 in hourly charges.

   b) (3 trips/week x 52 weeks) = 156 additional person hrs @ $16.80/hr.
   This is based on 75% of those hours at regular time equaling an additional $ 1,966 in hourly charges.

25% Hours	*Regular Time*	***Potential Annual Cost***		*75% Hours*	*Overtime*	***Potential Annual Cost***
39	*$11.20*	***($437)***		*117*	*$16.80*	***($1,966)***

2) Additional Wear and Tear and Fuel Costs - This figure is based on an industry level maintenance cost/mile of $. 75/mile and an average vehicle mile per gallon of 8.0 mpg. Again with the assumption of a centralized location the anticipated additional miles accumulated per trip is 15 miles one way, or 30 roundtrip. Therefore, with the above assumptions we assess this as follows:

   1) (3 trips/week x 52 weeks) = 156 additional trips at 30 miles roundtrip.
      - 156 trips x 30 miles = 4,680 annual miles
      - 4,680 miles @ $ .75/mile = $3,510 additional wear and tear.

2) (3 trips/week x 52 weeks) = 156 additional trips at 30 miles roundtrip.
   - 156 trips x 30 miles = 4,680 annual miles
   - (4,680 miles/8 mpg)*($4.00/gal) = $2,340 additional gas expense.

Miles	Maintenance Cost/Mile	**Potential *Annual Cost***		Miles	MPG	Cost/Gal	**Potential *Annual Cost***
4,680	$.75	**($3,510)**		4,680	8	$4.00	**($2,340)**

Cost/Benefit: Contracted Services

The assessment of contracted services above indicates a considerable opportunity for reduction of outsourcing that translates into the prospect for significant savings. While overall it appears beneficial, the down side is the affects on the YCCAC maintenance needs that are adversely affected in a centralized move. The YCCAC could see potential increases in costs associated with their outsourcing needs as they pertain to additional staff time and vehicle mileage incurred. Based on the findings, the savings opportunities associated with contracted services could be up to $65,114 annually.

6) *Vehicle Staging*

Vehicle staging is parking vehicles in strategic locations off-site that allow for reduced deadhead thereby reducing miles, wear and tear, fuel consumption and maintenance costs. Staging offers potential cost saving measures associated with these items. In this assessment the current locations of Shuttlebus, SPBS and RTP will be evaluated for feasibility of continued ownership/lease in coordination with a new location for limited use as vehicle staging yards, and possible limited maintenance service.

South Portland Bus Service – In a centralized location SPBS would see a move further south of their current location. With the Town of Scarborough as a reasonable focus of a central location the anticipated affects on SPBS is as follows:

- Approximate additional driving distance = 8 miles
- Additional travel time = 15 minutes

Projected costs to maintain the current facility for staging purposes only is up to $30,000 annually. This takes into account utilities and basic facility expenses but no daily staffing.

Facts: SPBS operates predominantly in the City of South Portland making a southern move slightly inconvenient for vehicle staging and employee commute. SPBS drivers currently live in and around the City of South Portland, therefore this type of move will increase travel time and possibly require overtime in some situations.

1) Employees - Taking into account 11 employees (3 on weekends), working 260 weekdays, 52 weekend days, and operating vehicles getting 4.2 miles per gallon the anticipated additional employee cost of the move is:

   11 employees x 30 minutes round trip = 330 minutes (5.5hrs)
   260 days x 5.5hrs = 1430hrs

3 employees x 30 minutes round trip = 90 minutes (1.5hrs)
52 days x 1.5hrs = 78hrs
Employee hourly rate = $27.75

Total hours = 1508

Total Hours	x	Hourly Rate	**Potential Additional Salary**
1508		$27.75	**($41,847)**

2 Fuel Consumption - Taking into account 11 vehicles (3 on weekends), working 260 weekdays, 52 weekend days, and operating vehicles getting 4.2 miles per gallon the anticipated fuel cost of the move is:

11 vehicles x 16 round trip miles daily = 176 mile
260 days x 176 miles = 45,760 miles
3 vehicles x 16 round trip miles daily = 48 mile
52 days x 48 miles = 2,496 miles
Miles per gallon = 4.2
Cost per Gallon = $4.00

Total miles = 48,256

Total Miles	/	MPG	Cost/Gal	**Potential Additional Fuel**
48,256		4.2	$4.00	**($45,958)**

Conclusion: With anticipated costs associated with a move further south estimated at approaching $87,805 annually in salary and fuel costs increases, it makes fiscal sense to offset that cost by maintaining the current location at the lesser estimated cost of $30,000.

Cost of NOT-Staging of Vehicles		Cost of Staging Vehicles	**Net Annual Gain**
($87,805)	>	($30,000)	**$57,805**

Shuttlebus – In a centralized location Shuttlebus would see a move further north of their current location. With the Town of Scarborough as a reasonable focus of a central location the anticipated affects on Shuttlebus is as follows:

- Approximate additional driving distance = 11 miles
- Additional travel time = 20 minutes

Projected costs to maintain the current facility for staging purposes only is up to $50,000 annually. This takes into account utilities and basic facility expenses with minimal weekly staffing.

Facts: Shuttlebus operates to points North, South, East and West of Biddeford and could find efficiencies in staging their own vehicles in both the new location and existing location. Predominantly their vehicles and drivers would be better suited staged in Biddeford according to their route origins and destinations. Therefore this assessment will look at the affects of all vehicles moving to new location as the starting point.

1 Employees - Taking into account 30 employees (7 full time at 260 days, 12 part time at 104 days, and 11 seasonal at 75 days), and operating vehicles getting 5 miles per gallon the anticipated additional employee cost of the move is:

7 employees x 40 minutes round trip = 280 minutes (4.67hrs)
260 days x 4.67hrs = 1214hrs
12 employees x 40 minutes round trip = 480 minutes (8hrs)
104 days x 8hrs = 832hrs
11 employees x 40 minutes round trip = 440 minutes (7.33hrs)
75 days x 7.33hrs = 550hrs
Employee Average hourly rate = $13.50
Total hours = 2596

Total Hours	x	Hourly Rate	**Potential Additional Salary**
2,596		$13.50	**($35,046)**

2 Fuel Consumption - Taking into account 11 vehicles on average being utilized 7 days per week, and getting 5 miles per gallon the anticipated fuel cost of the move is:

11 vehicles x 22 round trip miles daily = 242 mile
360 days x 242 miles = 87,120 miles
Miles per gallon = 5
Cost per Gallon = $4.00

Total Miles	/	MPG	Cost/Gal	**Potential Additional Fuel**
87,120		5	$4.00	**($69,696)**

Conclusion: With anticipated costs associated with a move further north estimated at approaching $104,742 annually in salary and fuel costs increases, it makes fiscal sense to offset that cost by maintaining the current location at the lesser estimated cost of $50,000.

Cost of NOT-Staging of Vehicles		Cost of Staging Vehicles	**Net Annual Gain**
($104,742)	>	($50,000)	**$54,742**

RTP – Has stated a radius of not more than 10 miles from their current location, which translates into an approximate 20 minute increase in travel one way. With the Town of Scarborough as a reasonable focus of a central location the anticipated affects on RTP is as follows:

- Approximate additional driving distance = 9 miles
- Additional travel time = 20 minutes

Projected costs to maintain the current facility for staging purposes only is up to $28,000 annually. This takes into account the current lease agreement ($42,000 annually) and more than 2/3rds of the dedicated facility space used to house the current fleet. Minimal weekly staffing would be needed to manage walk-in traffic.

Facts: RTP operates to points North of South Portland and could find efficiencies in staging their vehicles at the existing location and perhaps other locations nearer the Lakes Region of Cumberland County. Predominantly their vehicles and drivers would be better suited staged in Portland according to their route origins and destinations. Therefore this assessment will look at the affects of all vehicles moving to new location as the starting point.

1 Employees - Taking into account 42 employees operating vehicles getting 8 miles per gallon the anticipated additional employee cost of the move is:

42 employees x 40 minutes = 1680 minutes (28hrs)
260 days x 28 hrs = 7,280hrs
Employee Average hourly rate = $12.00

Total Hours	x	Hourly Rate	**Potential Additional Salary**
7,280		$12.00	**($87,360)**

2 Fuel Consumption - Taking into account 35 vehicles on average being utilized 5 days per week, and getting 8 miles per gallon the anticipated fuel cost of the move is:

35 vehicles x 18 round trip miles daily = 630 mile
260 days x 630 miles = 163,800 miles
Miles per gallon = 8
Cost per Gallon = $4.00

Total Miles	/	MPG	Cost/Gal	**Potential Additional Fuel**
163,800		8	$4.00	**($81,900)**

Conclusion: With anticipated costs associated with a move further south estimated at approaching $163,800 annually in salary and fuel costs increases, it makes fiscal sense to offset that cost by maintaining the current location at the lesser estimated cost of $28,000.

Cost of NOT-Staging of Vehicles		Cost of Staging Vehicles	**Net Annual Gain**
($169,260)	>	($28,000)	**$141,260**

YCCAC – As identified earlier under "Contracted Services" YCCAC could see an increase in costs associated with a move to a location further north of up to $8,250 annually. Therefore, if vehicle staging is a preferred alternative that potential increase may be avoided.

Cost/Benefit: Vehicle Staging

The assessment of staging vehicles versus a consolidated location of fleets to a new centrally located facility offers opportunity for stabilizing operating costs through a Net gain of up to $253,807 annually in savings associated with avoiding additional driver time incurred and fuel consumption.

7) Facility Consolidation (New & Existing)

New Construction – Design was based on two facility configurations that can accommodate:

1) Shuttlebus and SPBS operations, maintenance, and administrative staff, and provide fleet shelter.

2) Shuttlebus, SPBS and RTP operations, maintenance, and administrative staff, and provide fleet shelter.

Configuration one (1) - Approximate dimensions of 100' x 260' were determined necessary to meet

these needs (see facility specifications Chapter V, "Exhibit 1" for detail). Major categories in determining cost were, facility construction approximately $5.423 million, furnishings $35,000, maintenance equipment (including fuel facility) approximately $1.379 million, land acquisition and site development approximately $1.145 million, and Architectural/Engineering Design approximately $793,200 million. Estimated total acquisition: $ 8,730,200 (local match 20%)

The twenty percent (20%) local match could be partially achieved through in-kind land donation, which could also further reduce of overall project cost. Facility design plans take into account vision for future growth and expansion should services call for it.

Potential Local Match Requirement (20%)	$1,746,040 **(One-Time Cost)**

Configuration Two (2) - Should RTP give consideration to joining a consolidated effort it is anticipated the administrative space needs would double and maintenance space needs would triple, totaling approximately 72,000 Square Feet in all, and increase the project by nearly $12 million (see facility specifications Chapter V, "Exhibit 2" for detail). Major categories in determining cost were, facility construction approximately $14.388 million, furnishings $115,000, maintenance equipment (including fuel facility) approximately $2.301 million, land acquisition and site development approximately $1.645 million, and Architectural/Engineering Design approximately $1.845 million. Estimated total acquisition: $20,293,900 (local match 20%)

Potential Local Match Requirement (20%)	$4,058,780 **(One-Time Cost)**

Existing Locations – Existing facility considerations include industrials lease space; the Town of Scarborough, Department of Public Works; and strategic staging of services among several locations.

1. *Industrial Lease Space* – Pricing of industrial lease space for the centralized area under consideration average out to approximately $5.25 per square foot. Using the proposed facility design configurations previously established of 26,800 square feet (Shuttlebus and SPBS), and 72,000 square feet (Shuttlebus, SPBS and RTP), the costs of leasing come too:

Lease Square Foot	Cost/SqFt	Annual Cost	Monthly Cost
26,800	$5.25	$130,200	$10,850
72,000	$5.25	$367,500	$30,625

2. *Town of Scarborough, Department of Public Works* – The Public Works building in the Town of Scarborough sits on 15 acres of land, and houses a 48,000 square foot facility. Formerly designed to house a lumber facility, the public works building has considerable surplus warehouse space and limited administrative space.

The Town of Scarborough will consider their location for maintenance services utilizing their own mechanics at a billable hourly rate of $32-$35, and a shared use rate for facility and equipment of $19.21. Additional staff hiring's would occur with anticipation for three (3) full time mechanics and one (1) full time supervisor. The anticipated annual billable hours are 8320 for staffing and 2080 for facility, for an estimated cost of $328,162 (see table below). Scarborough does not anticipate having the capacity to manage the extended fleet of the RTP should they consider consolidation.

TOWN OF SCARBOROUGH PROPOSED FACILITY CHARGES					
Step	Technicians	Pay Scale	Annual Hrs/Tech	Total Hrs	Total Pay
5	3	$34.23	2,080	6,240	**$213,595**
6-7	1	$35.87	2,080	2,080	$74,610
	Facility Use	$19.21		2,080	$39,957
			Potential Annual Cost	**10,400**	**$328,162**

Total projected maintenance staff savings to Shuttlebus and SPBS is $263,517. Shuttlebus may consider retaining one mechanic for servicing the old Biddeford facility as a staging location.

3) *Strategic Staging of Services*- The third consolidation scenario is a mix of a shared use facility and existing location management. With four partners looking to find ways to reduce maintenance costs, the efficiencies of a centralized location may have limitations. This was discovered in the "Vehicle Staging" segment earlier in this section by showing potential savings up to $253,807, proving that not all results of consolidation are positive. The possibility of moving to a shared location that offers additional peripheral locations gives all operators choices that can benefit the bottom line. This potential savings was previously identified.

Cost/Benefit: Facility Consolidation

This assessment is to provide an understanding of costs associated with consolidation to a centralized location. It can help in determining what investments are required today to meet your goals for the future. This section helps in determining that initial investment and the anticipated time for return on that investment. The table below summarizes the various consolidation scenarios and their projected costs.

Facility Accommodations	Consolidation Costs	Potential Savings /W Staging
New Construction (26,800 Sq Ft)	$1,746,040 (One-Time Local Share)	With use of existing facilities as vehicle staging grounds, the potential for additional saving to consolidated costs to the left is up to $253,807 annually in driver salaries and fuel.
New Construction (72,000 Sq Ft)	$4,058,780 (One-Time Local Share)	
Rent/Lease (26,800 Sq Ft)	$130,200 (annual)	
Rent/Lease (72,000 Sq Ft)	$367,500 (annual)	
Scarborough DPW (26,800 Sq Ft)	$328,162 (annual)	

8) Dispatch Salaries, Wages, and Fringe

The dispatch expenses dedicated to salaries and wages for the study group's core staffing includes 13 full time staff totaling approximately $325,000 in dispatch salaries, wages, and fringe annually as outlined in the table below. YCCAC is not included in these numbers as they are participating only for purposes of outsourcing maintenance at this time.

Total Agency Breakdown:

Agency	Staff	Dispatch and Trip Planning Salaries	Provide Vehicle Dispatch	Provide Schedule and Trip Planning	Annual Rides	Number of Vehicles
Shuttlebus-ZOOM	1	$35,000	Yes	Limited	180,000	21
South Portland Bus Service	3	$30,000	Yes	Limited	220,000	12
Regional Transportation Program	9	$260,000	Yes	Yes	138,000	38
Totals	13	$325,000			538,000	$317,746

Shuttlebus-ZOOM and South Portland Bus Service

The dispatch expenses of Shuttlebus-ZOOM is generated by one staff person that also serves as administrative assistant to the director, and therefore performs many duties from that position. South Portland Bus Service utilizes their utility driver as their primary dispatcher, with assistance as necessary from the operations supervisor and director. Both Shuttlebus-ZOOM and SPBS are primarily engaged in vehicle dispatch activities with limited time spent on trip planning. Their combined dedicated salaries for this function are approximately $65,000 annually. Neither currently possesses trip planning software that could further streamline services and offer additional administrative efficiencies.

Potential re-direction of SPBS personnel, back to their regular duties, that currently fill-in for dispatch needs is a benefit of collaboration that can offer further streamlining of activities and administrative gains.

Of the combined dispatch and trip planning activities, four (4) staff members are utilized at a cost of $65,000 annually. A centralized location and streamlined approach could reduce that need to half the current staff.

Current Salary	50% Staff Reduction	Potential Annual Savings
$65,000	$32,500	$32,500
Re-direction of staff time does not eliminate salary; it moves it back to the operations side of the house. Staff can then concentrate on their intended duties thus creating administrative efficiencies allowing resources to be better utilized.		

Regional Transportation Program

RTP provides both vehicle dispatch and trip planning activities for approximately 37 vehicles and 138,000 trips annually. Nine (9) of the identified thirteen (13) personnel manage dispatch and trip planning for all agency operations. RTP has a very capable software program in place and also has the greatest need for trip planning functionality of all study partners. RTP personnel manage many different program related rides and often deal in a one on one situation with the rider and their respective agency. The level of staffing is deemed sufficient for work performed, so further cost efficiencies could be found in software upgrades and shared use opportunities. For purposes of this section there is no anticipated savings that can be realized.

Cost/Benefit: Dispatch Salaries, Wages, and Fringe

Of the scenarios above the potential benefits in staff re-direction/reduction and consolidation can offer potential savings to the dispatch budget of up to $32,500 annually.

9) Advanced Technology

This would require an initial investment in robust technologies that can offer economies of scale over a period of time. An initial investment approaching $150,000 would be required (20% local match) to implement these technologies for the three agencies to interface together. The resulting benefits are realized through efficiencies such as: data and asset management, streamlined reporting processes, management of funding sources, complaint reduction, and increased customer satisfaction.

Potential Local Match Requirement (20%)	$30,000 **(One-Time Cost)**

Cost/Benefit: Advanced Technologies

An initial investment of up to $150,000 ($30,000 local match) would offset any potential staff savings the Shuttlebus or SPBS would realize. The potential for return on investment based on identified staff savings alone would be approximately 5 years (1 year based on local match). The further peripheral benefits identified as efficiencies can further shorten the return on investment and create administrative efficiencies as early as implementation.

Conclusion

This analysis provides projections based on data provided by the study partners. The evaluations are based on various designs, availability of funding, and implementation of action items.

A decision to own versus rent may depend upon available resources, what option offers more control, or simply what is least costly.

Whatever the decision, a cost benefit analysis can achieve the ability to make an educated decision on whether a plan of action is a positive one or not. It can help establish benchmarks and milestones, and advance the planning process.

The adjustments contained within this analysis can take as little as a year, or several years to achieve full implementation. Location, support and existing obligations all need to be accounted for when choosing a direction to proceed in.

Ultimately, the resolution to move on a project is up to the project stakeholders and is contingent upon the desired direction, available resources, and local commitment.

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CHAPTER V

BUILDING DIMENSIONS

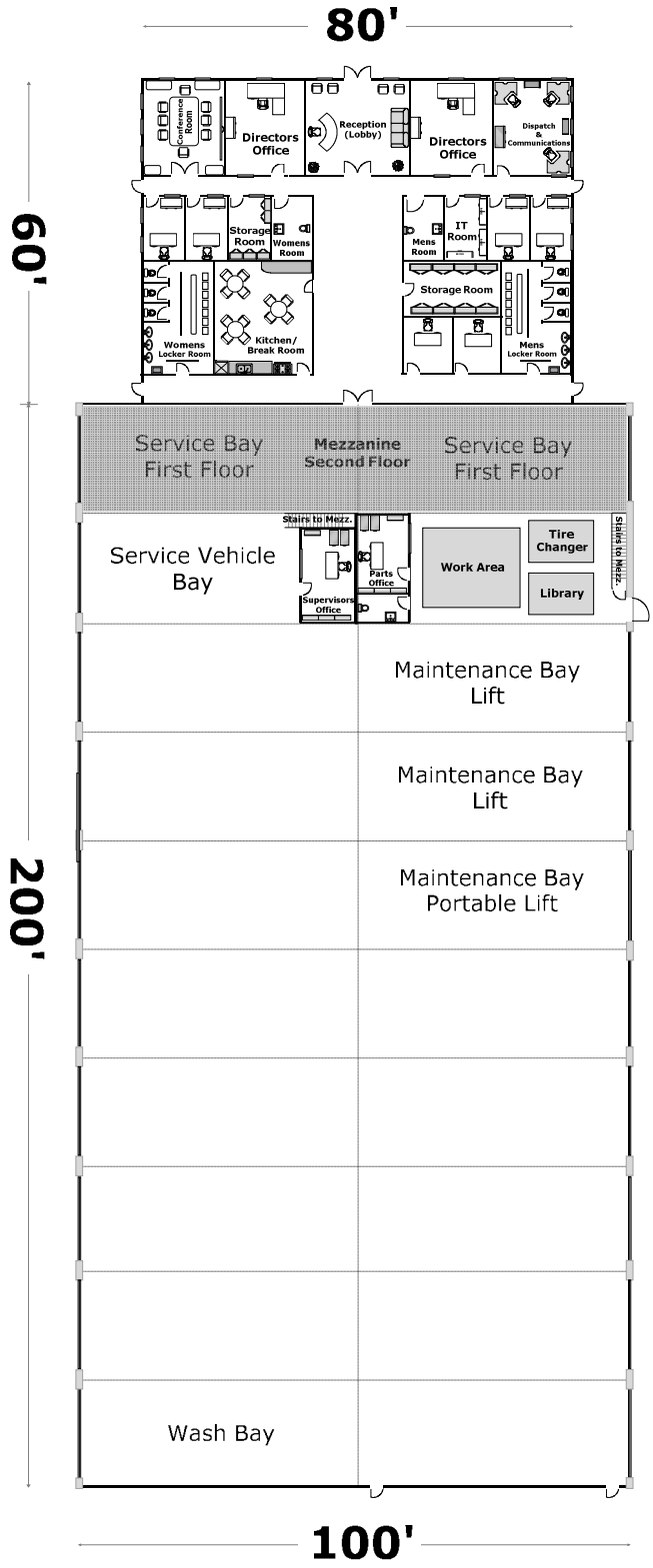
The facility renderings on the following pages were ascertained from research of approximate costs associated with new transit facility development. Facility dimensions for administrative and maintenance space requirements were derived from discussions with the core study partners. Those discussions determined South Portland Bus Service, Shuttlebus-ZOOM, and the Regional Transportation Program would consider relocation to a centralized facility. However, the Regional Transportation Program considers a move unlikely, but wishes to be considered in the assessment.

For this reason two (2) renderings are provided, one depicting a 26,800 sq ft facility meeting the needs of South Portland Bus Service and Shuttlebus-ZOOM and allowing for indoor storage of all rolling stock. A second garage depicting a 72,000 sq ft facility would meet the needs of South Portland Bus Service, Shuttlebus-ZOOM, and the Regional Transportation Program, also allowing for indoor storage of all rolling stock.

Main Street Connections makes no claim to be an Architectural or Engineering firm. The facility renderings on the following pages are for informational purposes only, and are based on approximate dimensions required to meet capacity needs for staff and equipment. Actual architectural or engineering drawings and specifications would need to be developed by a qualified architectural or engineering firm.

EXHIBIT 1

26,800 Square Feet Facility Design



26,800 Square Foot Cost Estimate

CONSTRUCTION	UNIT COST	TOTAL
Admin Offices *(4,800 Sq Ft)*	$225/sqft	$1,080,000
Maintenance Area* *(20,000 Sq Ft)*	$175/sqft	$3,500,000
Parts Mezzanine *(2,000 Sq Ft)*	$175/sqft	$ 350,000
Contingency	10%	$493,000
Construction Total		$5,423,000

FURNISHINGS	UNIT COST	TOTAL
Admin Furniture		$25,000
Communications		$15,000
Furnishings Total		$40,000

EQUIPMENT	UNIT COST	TOTAL
2 Hydraulic Lifts	$75,000	$150,000
4 Post Lifts	$18,000	$72,000
1 Bus Wash	$100,000	$100,000
Fueling Island *(20,000 gallon)*	$540,000	$540,000
19 High speed Roll Up Garage Doors	$30,000	$570,000
2 Oil Tanks *(1 fresh, 1 waste)*	11,000	$22,000
Tire Changer	$5,000	$5,000
Exhaust System	$30,000	$30,000
Hose Reel Tree	$10,000	$10,000
Equipment Total		$1,499,000

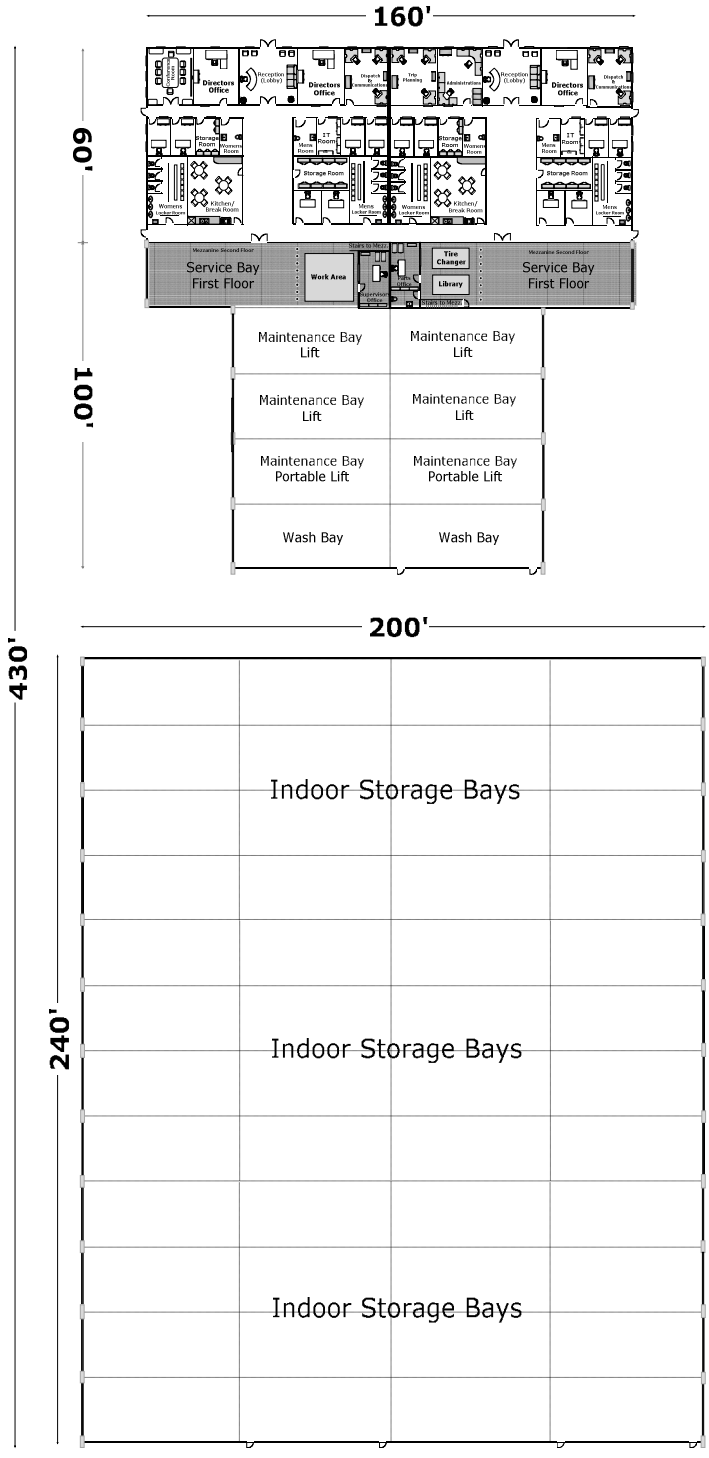
LAND ACQUISITION	UNIT COST	TOTAL
Land Acquisition	6 Acres	$500,000
Site Development		$500,000
Environmental Permitting	State/ Federal	$100,000
Surveying		$5,000
Building Permits		$20,000
Appraisals, Legal		$20,000
Land Total		$1,145,000

A/E DESIGN	UNIT COST	TOTAL
A/E Design	10%	$810,700
A/E Total		$810,700

TOTAL ESTIMATE		$8,917,700

EXHIBIT 2

72,000 Square Foot Facility Design



72,000 Square Foot Cost Estimate

CONSTRUCTION	UNIT COST	TOTAL
Admin Offices *(9,600 Sq Ft)*	$225/sqft	$2,160,000
Maint/Storage Area *(59,200 Sq Ft)*	$175/sqft	$10,360,000
Parts Mezzanine *(3,200 Sq Ft)*	$175/sqft	$ 560,000
Contingency	10%	$1,308,000
Construction Total		$14,388,000

FURNISHINGS	UNIT COST	TOTAL
Admin Furniture		$75,000
Communications		$40,000
Furnishings Total		$115,000

EQUIPMENT	UNIT COST	TOTAL
4 Hydraulic Lifts	$75,000	$300,000
8 Post Lifts	$18,000	$144,000
2 Bus Wash	$100,000	$200,000
Fueling Island *(20,000 gallon)*	$540,000	$540,000
34 High speed Roll Up Garage Doors	$30,000	$1,020,000
2 Oil Tanks *(1 fresh, 1 waste)*	11,000	$22,000
Tire Changer	$5,000	$5,000
Exhaust System	$60,000	$60,000
Hose Reel Tree	$10,000	$10,000
Equipment Total		$2,301,000

LAND ACQUISITION	UNIT COST	TOTAL
Land Acquisition	12 Acres	$1,000,000
Site Development		$500,000
Environmental Permitting	State/ Federal	$100,000
Surveying		$5,000
Building Permits		$20,000
Appraisals, Legal		$20,000
Land Total		$1,645,000

A/E DESIGN	UNIT COST	TOTAL
A/E Design	10%	$1,844,900
A/E Total		$1,844,900

TOTAL ESTIMATE		$20,293,900

Natural Gas Compatible Bus Maintenance Facilities

As a compliment to bus facility specifications, sample research was performed on incorporating compressed natural gas (CNG) amenities to the overall facility design, should it become a direction of choice now or in the future. Many transit agencies are considering the benefits of utilizing alternative fueled vehicles for use in their fleets, due to high gasoline and diesel prices, and also as a way to market their transit systems as environmentally friendly. Options including hybrid-diesel vehicles, compressed natural gas (CNG), autogas or liquid propane gas (LPG), and Hydrogen fueled buses are becoming more prevalent as part of a regular active fleet. Compressed natural gas or CNG is an odorless, colorless gas which must be handled accordingly, and a facility housing CNG vehicles must ensure safety by designing a facility that will meet code standards to accommodate CNG vehicles. Natural gas is domestically produced and costs roughly half as much as diesel at the pump on an energy equivalent basis aka a diesel gallon equivalent.

In order to prepare for maintaining natural gas vehicles within a facility, several design factors must be taken into account.

1) Flat roofs with open web steel joists or gable roofs with steel support trusses are gaining popularity and allows for accidental gas release to move freely to exhaust fans without pocketing;
2) Retrofitting an older existing maintenance facility to accommodate indoor CNG maintenance may require modifications to the existing ceiling to ensure there are not inverted wells or dead spaces preventing gas from escaping;
3) High-speed fire rated roll up doors with a rubberized finish, and breakaway rails should also be installed in the facility;
4) Installation of higher than standard code ventilation systems, in the event of a leak, and a CH4 detection system;
5) Sealed explosion proof electric fixtures for all lighting, outlets and fixtures in the facility;
6) Maintain positive air pressure in adjoining unconditioned spaces to prevent migration of leaked gas.

Natural gas has a high combustion rate of about 900-1200 degrees Fahrenheit so it would be difficult for an explosion to occur, because the likelihood of the temperature getting this high indoors is relatively uncommon. The use of open flame heaters would be prohibited within a CNG facility, however an outdoor mounted, indirect fired heating unit is recommended in a CNG facility.

There are several codes and standards that contain general guidance on facility design that any transit agency considering the addition of CNG fueling as a part of a new facility should become familiar with. One such code is NFPA 52: Vehicular Gaseous Fuel Systems Code.

Mechanics working on CNG buses will need to be familiar with ignition systems because CNG buses, unlike diesel buses, are spark ignited. Therefore mechanics will need to be trained on these systems and store necessary parts such as spark plugs to repair CNG vehicles.

If the study agencies were to explore the option of incorporating CNG vehicles into their fleet it would be more cost effective to design a facility to include CNG in the beginning of the design process. In this way, the agencies are keeping their options open, and by spending a bit more in the preliminary design phase, it could end up saving money in the long run.

The additional cost to construct a CNG compatible facility taking into account structural, heating, ventilation, electrical and gas detection modifications could range from $500,000 -$1,000,000.

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CHAPTER VI

ALTERNATIVE RELOCATION OPTIONS

Alternative Relocation Options

The prior cost benefit analysis was about determining the cost of changes needed to improve, adjust or modify current maintenance practices and service delivery. The four partners of Shuttlebus, SPBS, RTP, and YCCAC have endured rising costs associated with maintaining their facilities, vehicle fleets and equipment over the past few years. The cost benefit analysis will help determine what cost effective measures can be implemented to begin addressing rising maintenance costs, and what they can expect as a potential return on investments.

The following charts are separated into five (5) individual relocation evaluations based on the three versions of a facility (new construction, lease/rent, and the Town of Scarborough option), and two (2) new maintenance facility configurations 26,800 sq ft and 72,000 sq ft.

They offer alternatives to current practices for consideration by the study partners and local decision makers. Later in this chapter we provide, based on discussions and research, available real estate and rental property listings that could possibly meet relocation criteria.

Evaluation 1 - New Construction (26,800 sq ft) – **Projected Cost New $8,917,700**
There were six (6) categories showing potential cost savings if their actions are implemented. The potential savings identified totaled $701,314. Three (3) categories would have a cost associated with implementation. Two of the three categories, new construction and advanced technology, would be considered an investment if implemented. The potential cost of this option totals $1,825,599.

	Line Item	Cost Savings	Annual Cost Increases and One-Time Local Match
1	Maintenance Salaries, Wages, and Fringe	$198,899	
2	Facility Expenses (New Construction)	$58,810	
3	Utilities (26,800 Sq Ft)		$12,059
4	Parts and Supplies	$92,184	
5	Contracted Services	$65,114	
6	Vehicle Staging	$253,807	
7	New Construction (26,800 Sq Ft)		$1,783,540 (Local Match)
8	Dispatch Salaries, Wages, and Fringe	$32,500	
9	Advanced Technology		$30,000
		$701,314	**$1,825,599**

Does not include costs associated with restitution of existing facilities or tax levy.

Summary:

The implementation of these changes and modifications to alleviate escalating costs could require an investment of up to $1,825,599 to execute. Together, these adjustments will take several years to implement, with the most time consuming project being that of new construction. Federally funded facilities can take upward of five (5) year or more to complete when taking into account project inception to project close-out.

Return on investment under new construction, assuming replacement of existing equipment and provided that recommendations are implemented in a timely manner, is determined to be approximately 2.5 years. This is taking into account an initial investment of $1,825,599 divided by potential savings identified $701,314.

Unlike renting or leasing, new construction alleviates on-going mortgage payments once the local share has been satisfied (facility taxes, if applicable, may still apply).

Evaluation 2 – Lease/Rent (26,800 sq ft)

There were five (5) categories showing potential cost savings if their actions are implemented. The potential savings identified totaled $642,504. Four (4) categories would have a cost associated with implementation. Two of the four categories, rent/lease and advanced technology would be considered an investment if implemented. The potential cost of this option totals $278,449.

	Line Item	Cost Savings	Annual Cost Increase
1	Maintenance Salaries, Wages, and Fringe	$198,899	
2	Facility Expenses (rent, 26,800 sq ft)*		$106,190
3	Utilities (26,800 Sq Ft)		$12,059
4	Parts and Supplies	$92,184	
5	Contracted Services	$65,114	
6	Vehicle Staging	$253,807	
7	Rent/Lease (26,800 Sq Ft)		$130,200
8	Dispatch Salaries, Wages, and Fringe	$32,500	
9	Advanced Technology		$30,000
		$642,504	$278,449

Does not include costs associated with restitution of existing facilities and retrofitting needs of a new location.

Summary:

The implementation of these changes and modifications to alleviate escalating costs could require an investment of up to $278,449 to execute. Return on investment under a rent/lease agreement can be under one year after taking up residency, assuming replacement of existing equipment and recommendations contained within are implemented in a timely manner.
Unlike new construction, renting or leasing for use of a maintenance facility is on-going and subject to annual cost increases.

Evaluation 3 – Contracting with the Town of Scarborough DPW

There were six (6) categories showing potential cost savings if their actions are implemented. The potential savings identified totaled $701,314. Two (2) categories would have a cost associated with implementation. Categories with a cost increase were, contracting with the Town of Scarborough DPW and advanced technology. These would be considered an investment if implemented. The potential cost of this option totals $358,162.

	Line Item	Cost Savings	Annual Cost Increase
1	Maintenance Salaries, Wages, and Fringe	$198,899	
2	Facility Expenses (Scarborough DPW)	$58,810	
3	Utilities (included in Scarborough DPW)		
4	Parts and Supplies	$92,184	
5	Contracted Services	$65,114	
6	Vehicle Staging	$253,807	
7	Scarborough DPW (26,800 Sq Ft)		$328,162
8	Dispatch Salaries, Wages, and Fringe	$32,500	
9	Advanced Technology		$30,000
		$701,314	$358,162

Does not include costs associated with restitution of existing facilities and retrofitting needs of a new location.

Summary:

The implementation of these changes and modifications to begin to alleviate escalating costs could require an investment of up to $358,162 to execute. Together, these adjustments may take several years to achieve full implementation, and are highly dependent upon local support and resolving any remaining financial obligations.

Return on investment under a contract with the Town of Scarborough, can be achieved under one year after taking up residency, assuming replacement of existing equipment and recommendations contained within are implemented in a timely manner.

The Town of Scarborough's DPW has space and staff limitations, making the prospect of being able to accommodate all three operations (Shuttlebus, SPBS and RTP) unlikely. Review accounted for accommodating two operations in a maintenance only capacity. Unlike new construction, contracting for use of a maintenance facility is on-going and subject to annual modifications and cost increases.

Evaluation 4 - New Construction (72,000 sq ft) – **Projected Cost New $20,293,900**
There were six (6) categories showing potential cost savings if their actions are implemented. The potential savings identified totaled $701,314. Three (3) categories would have a cost associated with implementation. Two of the three categories, new construction and advanced technology, would be considered an investment if implemented. The potential costs of this option totals $4,139,839.

	Line Item	Cost Savings	Annual Cost Increases and One-Time Local Match
1	Maintenance Salaries, Wages, and Fringe	$198,899	
2	Facility Expenses (New Construction)	$58,810	
3	Utilities (72,000 Sq Ft)		$51,059
4	Parts and Supplies	$92,184	
5	Contracted Services	$65,114	
6	Vehicle Staging	$253,807	
7	New Construction (72,000 Sq Ft)		$4,058,780 (Local Match)
8	Dispatch Salaries, Wages, and Fringe	$32,500	
9	Advanced Technology		$30,000
		$701,314	$4,139,839

Does not include costs associated with restitution of existing facilities or tax levy.

Summary:

The implementation of these changes and modifications to begin to alleviate escalating costs will require an investment of up to $4,139,839 to execute. Together, these adjustments will take several years to implement, with the most time consuming project being that of new construction. Federally funded facilities can take upward of five (5) years or more to complete when taking into account project inception to project close-out.
Return on investment under new construction, assuming replacement of existing equipment and recommendations are implemented in a timely manner, is determined to be 5.9 years. This is taking into account an initial investment of $4,139,839 divided by potential savings identified $701,314. Unlike renting or leasing, new construction alleviates on-going mortgage payments once the local share has been satisfied (facility taxes may still apply).

Evaluation 5 – Lease/Rent (72,000 sq ft)

There were five (5) categories showing potential cost savings if these actions are implemented. The potential savings identified totaled $642,504. Four (4) categories would have a cost associated with implemented. Two of the four categories, rent/lease and advanced technology, would be considered an investment if implemented. The potential costs of this option totals $757,249.

	Line Item	Cost Savings	Annual Cost Increase
1	Maintenance Salaries, Wages, and Fringe	$198,899	
2	Facility Expenses (rent, 72,000 sq ft)		$308,690
3	Utilities (72,000 Sq Ft)		$51,059
4	Parts and Supplies	$92,184	
5	Contracted Services	$65,114	
6	Vehicle Staging	$253,807	
7	Rent/Lease (72,000 Sq Ft)		$367,500
8	Dispatch Salaries, Wages, and Fringe	$32,500	
9	Advanced Technology		$30,000
		$642,504	$757,249

Does not include costs associated with restitution of existing facilities and retrofitting needs of a new location.

Summary:

The implementation of these changes and modifications to begin to alleviate escalating costs will require an investment of up to $757,249 to execute. Together, these adjustments may take several years to achieve full implementation depending on local support, finding the appropriate location, and resolving any remaining obligations.

Return on investment under a rent/lease agreement can be approximately one year after taking up residency, assuming replacement of existing equipment and recommendations are implemented in a timely manner.

Unlike new construction, renting or leasing a maintenance facility is on-going and subject to annual cost increases.

On the following pages are possible property locations that could accommodate the various alternative relocation options. These are based on conversations with study partners, interested municipalities, and area searches of real estate and rental opportunities. Locations offer potential square footage requirements, however validity of locations and necessary retro fitting needed to render properties useful for transit purposes would require further research.

Property Location 1
Saco Maine:

Saco Industrial Park
Industrial Park Road & Spring Hill Road
Saco, ME 04072
Total Space Available: 30,000 SF
Rental Rate: Negotiable
Property Type: Industrial
Property Sub-type: Flex Space
Construction Status: Under Const/Proposed
Build to Suit: Yes
Lot Size: 5.42 AC
Zoning Description: I
In-Kind Opportunity: No

Proximity to Existing Locations:
Potential for vehicle staging best suited for SPBS and RTP. Proximity to current Shuttlebus offers full relocation to said agency and provides suitable relocation to effectively maintain YCCAC with little adverse affects to cost.

= Proposed Facility Location

Property Location 2
Saco Maine:

14 Willey Rd, Saco, ME 04072
Spring Hill Industrial Park

Total Space Available: 25,200 SF
Rental Rate: Negotiable
Property Type: Industrial
Property Sub-type: Warehouse
Construction Status: Existing
Build to Suit: No ($5 sq ft)
Lot Size: 4.68 AC
Zoning Description:
In-Kind Opportunity: No

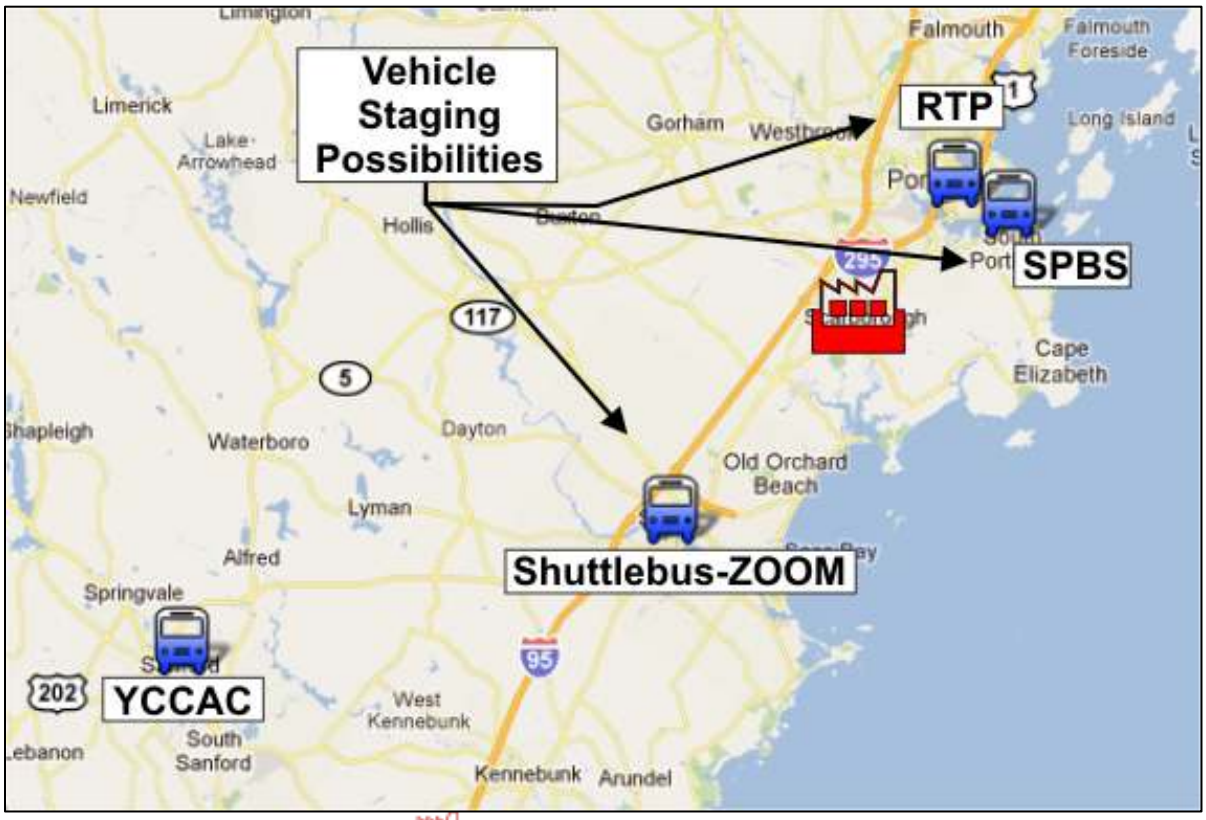
Proximity to Existing Locations:
Potential for vehicle staging best suited for SPBS and RTP. Proximity to current Shuttlebus offers full relocation to said agency and provides suitable relocation to effectively maintain YCCAC with little adverse affects to cost.

= Proposed Facility Location

Property Location 3
Scarborough Maine:

Town of Scarborough DPW
90 Washington Ave,
Scarborough, ME
Total Space Available: 6,000 SF
Rental Rate: Negotiable
Property Type: Industrial
Property Sub-type:
Construction Status: Complete
Build to Suit: Maintenance Only
Lot Size: 15 AC
Zoning Description:
In-Kind Opportunity: No

Proximity to Existing Locations:
Potential for vehicle staging best suited for Shuttlebus, SPBS and RTP. Proximity to current Shuttlebus location produces adverse affects to cost for the current YCCAC maintenance outsource contract. Potential for vehicle staging at current Shuttlebus facility could alleviate those adverse affects on YCCAC.



= Proposed Facility Location

Property Location 4
South Portland Maine:

South Portland (Potential City Site)
929 Highland Ave, SouthPortland, ME
Total Space Available: Land
Purchase Rate: Municipal Land
Property Type: Municipal
Property Sub-type:
Construction Status: Proposed
Build to Suit: Yes
Lot Size: 99 AC
Zoning Description: DZ
In-Kind Opportunity: Yes

Proximity to Existing Locations:
Potential for vehicle staging best suited for Shuttlebus. Proximity to current SPBS and RTP locations offer full relocation potential for said agencies. This relocation option would not be well suited for future outsourcing of YCCAC maintenance needs due to adverse affects to costs.

= Proposed Facility Location

Property Location 5
Saco Maine:

45 Industrial Park Road, Saco, Maine
Total Space Available: Land
Purchase Rate: $1.2 Million
Property Type: Industrial
Property Sub-type:
Construction Status:
Build to Suit: Unsure
Lot Size: 31.2 AC
Zoning Description: Industrial
In-Kind Opportunity: Doubtful

Proximity to Existing Locations:
Potential for vehicle staging best suited for SPBS and RTP. Proximity to current Shuttlebus offers full relocation to said agency and provides suitable relocation to effectively maintain YCCAC with little adverse affects to cost.

= Proposed Facility Location

Property Location 6
Systems Remain at Existing locations:

The final alternative is electing to remain in existing locations and achieve collaborative efficiencies in areas such as:

- Standardization of vehicles, parts & supplies, and other equipment through practices like joint procurement and cooperative purchasing procedures;
- Develop uniform practices in Preventative Maintenance (PM);
- Coordination of Maintenance and Dispatch Technology.
- Coordination of services to reduce miles, duplicative services and equipment.

This option will not address the increasing costs associated with aging facilities or the need for expansion, but efficiencies in other areas can be accomplished. Should relocation not be an option at this time other cost saving measures exist in the areas of non-fixed assets and technologies that can offer savings opportunities for all agencies.

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CHAPTER VII

COST SHARE ANALYSIS

Cost Share Analysis

This cost share analysis is to help determine criteria that can be utilized in the development of a fair share formula for future collaborations. The four partners Shuttlebus, SPBS, RTP, and YCCAC have expressed their desired levels of participation in a shared use facility for purposes of maintenance, and to the extent possible, dispatch functions.

Two of the four (Shuttlebus and SPBS) wish to relocate to a shared facility at a centralized location to achieve efficiencies that can help reduce costs. RTP feels a central location would not be in their best interest if it requires a move south of their current location. However, they do wish to be included in the assessment of costs to help rationalize their position.

The "Cost Share" formula is based on agency space requirements within a shared use facility. The formula is percentage driven based on individual agency staffing, vehicle and equipment space requirements. These percentages are then evaluated against the five (5) scenarios identified in the conclusion of the cost benefit analysis.

Below are two separate evaluations based on, the two agency participation of Shuttlebus and SPBS, and the three agency participation of Shuttlebus, SPBS and RTP. The percentages are for informational purposes only. Actual shared percentages in collaboration are subject to local approvals.

Fleet totals are based on an agencies projected "Allowable Fleet" (number of vehicles necessary to provide service levels and allow for usual rotation for preventative maintenance).

Staff totals are based on reported administrative, maintenance, support and driving staff.

The third evaluation below "New Construction Cost Breakout Evaluation" is a breakout of administrative and maintenance costs used to determine the cost share for new construction.

Two Agency Percentage Evaluations:

Agency	Fleet	%	Staff	%	Average Percentage
Shuttlebus	10	59%	38	73%	66.5%
South Portland Bus Service	7	41%	14	27%	33.5%
Totals	17	100%	52	100%	100%

Three Agency Percentage Evaluations:

Agency	Fleet	%	Staff	%	Average Percentage
Shuttlebus	10	19%	38	32%	31%
South Portland Bus Service	7	13%	14	12%	15%
Regional Transportation Program	36	68%	67	56%	54%
Totals	53	100%	119	100%	100%

New Construction Cost Breakout Evaluation:

Facility Size	Admin Sq Ft	Admin Costs	Maintenance Sq Ft	Maintenance Costs	Total Costs
26,800 Sq Ft	4,800	$ 2,344,350	22,000	$6,573,350	$8,917,700
72,000 Sq Ft	9,600	$ 4,673,950	62,400	$15,619,950	$ 20,293,900

The following illustrations are shared use scenarios based on fleet, staff and average percentages as stated above. Fleet and staff percentages are used in determining the projected shared maintenance and administrative costs of a new facility. Average percentages are used for rent or lease arrangements whose maintenance and administrative breakout cannot be determined at this time.

They are allocated toward the listed items under Costs recommended being included in a "Shared Use "agreement below. These are only sample interpretations for presentation of the shared cost methodology.

Costs recommended being included in a "Shared Use" agreement

1. Facility local share, rent or lease;
2. Utilities and facility expenses;
3. Shared equipment; contracts; and technology

Costs **NOT** recommended being included in a "Shared Use" agreement

1. Salaries, wages, and fringe;
2. Vehicle staging costs;
3. Parts and supplies;
4. Individualized equipment; contracts; and technology

Illustration 1 - New Construction (26,800 sq ft) - **Projected New Construction Cost $8,917,700**

The findings of the Cost Benefit Analysis, "Evaluation 1", were that a one-time investment of approximately $1,783,540 (20% of projected cost new) would be necessary to meet the local match requirements and peripheral expenses associated with new construction. This expense was determined taking into account Shuttlebus-ZOOM and SPBS as the building occupants. With this number as a starting point, the following project share percentages and project cost shares were determined.

Agency Projected One Time Local Match Share	Administrative Staff Share	Administrative Cost	Maintenance Share Percentage	Maintenance Cost Share	Project Cost Share
Shuttlebus-ZOOM	73%	$342,275	59%	$775,655	$1,117,930
South Portland Bus Service	27%	$126,595	41%	$539,015	$665,610
Total Cost Share	**100%**	**$468,870**	**100%**	**$1,314,670**	**$1,783,540**

Unlike renting or leasing, new construction alleviates on-going mortgage payments once the local share has been satisfied. This illustration does not include costs associated with restitution of existing facilities or tax levy. This percentage format should be reviewed annually to determine continued fair and equitable distribution of expenses.

Illustration 2 – Lease/Rent (26,800 sq ft)

The findings of the Cost Benefit Analysis, "Evaluation 2", were that an initial investment of approximately $278,449 would be necessary to meet a rental/lease agreement of 26,800 sq ft and peripheral expenses associated with relocation. This expense was determined taking into account Shuttlebus-ZOOM and SPBS as the building occupants. With this number as a starting point, the following project share percentages and project cost shares were determined.

Agency	Project Share Percentage	Project Cost Share
Shuttlebus-ZOOM	66.5%	$185,169
South Portland Bus Service	33.5%	$93,280
	100%	**$278,449**

This illustration does not include costs associated with restitution of existing facilities and retrofitting needs of a new location. This percentage format should be reviewed annually to determine continued fair and equitable distribution of expenses.

Illustration 3 – Contracting with the Town of Scarborough DPW

The findings of the Cost Benefit Analysis, "Evaluation 3", were that an approximate annual investment of $358,162 would be necessary to afford an annual service agreement with the Town of Scarborough. The agreement would include two hourly rate structures, one for mechanics time, billable at a range of $32-$35 per hour, and a second rate for facility and equipment use billable at $19.21 per hour. These charges were determined taking into account an agreement with Shuttlebus-ZOOM and SPBS as the serviced agencies.

It would be inconsistent to assume shared percentages can always work fairly in a service agreement such as the one offered by the Town of Scarborough. In a service agreement such as this, the charges are incurred as services are needed. The condition of equipment can play heavily into the volume of work required for an agency, and therefore can cause unbalance in actual costs if driven specifically on a percentage basis.

The table below depicts costs incurred if identified equipment percentages equaled service performed percentages. However, a more practical approach may be to pay as you go for agency specific services rendered, thereby avoiding imbalance of charges.

Agency	Project Share Percentage	Project Cost Share
Shuttlebus-ZOOM	66.5%	$238,178
South Portland Bus Service	33.5%	$119,984
	100%	**$358,162**

Unlike new construction, contracting for use of a maintenance facility is on-going and subject to annual modification and cost increases. This illustration does not include costs associated with restitution of existing facilities and retrofitting needs of a new location.

Illustration 4 - New Construction (72,000 sq ft) - **Projected New Construction Cost $20,293,900**

The findings of the Cost Benefit Analysis, "Evaluation 4", assume a one-time investment of approximately $4,058,780 (20% of projected cost new) would be necessary to meet the local match requirements and peripheral expenses associated with new construction. This expense was determined taking into account Shuttlebus-ZOOM, SPBS and RTP as the building occupants. With this number as a starting point, the following project share percentages and project cost shares were determined.

Agency Projected One Time Local Match Share	Administrative Staff Share	Administrative Cost	Maintenance Share Percentage	Maintenance Cost Share	Project Cost Share
Shuttlebus-ZOOM	32%	$299,133	19%	$593,558	$892,691
South Portland Bus Service	12%	$112,175	13%	$406,119	$518,294
Regional Transportation	56%	$523,482	68%	$2,124,313	$2,647,795
Total Cost Share	**100%**	**$934,790**	**100%**	**$3,123,990**	**$4,058,780**

Unlike renting or leasing, new construction alleviates on-going mortgage payments once the local share has been satisfied. This illustration does not include costs associated with restitution of existing facilities or tax levy. This percentage format should be reviewed annually to determine continued fair and equitable distribution of expenses.

Illustration 5 – Lease/Rent (72,000 sq ft)

The findings of the Cost Benefit Analysis, "Evaluation 5", are that an initial investment of approximately $757,249 would be necessary to meet a rental/lease agreement of 72,000 sq ft and peripheral expenses associated with relocation. This expense was determined taking into account Shuttlebus-ZOOM, SPBS, and RTP as the building occupants. With this figure as a starting point, the following project share percentages and project cost shares were determined.

Agency	Project Share Percentage	Project Cost Share
Shuttlebus-ZOOM	31%	$234,747
South Portland Bus Service	15%	$113,587
Regional Transportation Program	54%	$408,915
	100%	**$757,249**

This illustration does not include costs associated with restitution of existing facilities and retrofitting needs of a new location. This percentage format should be reviewed annually to determine continued fair and equitable distribution of expenses.

Conclusion:

Cost sharing a proposed facility budget that involves multiple partners requires strong justification in support of the share distribution. In addition to establishing a budget it is important to be able to substantiate where the cost share is coming from.

The above shared use illustrations are for example purposes only and demonstrate cost share formulas based on capacity requirements and shared initiatives, as presented by the study partners. The actual financial support structure of a project ultimately lies in the negotiations between participating agencies and local decision makers.

After a cost sharing formula is committed to in a proposal, actual costs as incurred must be documented to help resolve future conflicts and validate renegotiations of the share formula.

Objectives of a cost sharing program are to:

1. Establish mutually agreed upon areas of share distribution;
2. Establish mutually agreed upon fair and equitable share distribution formulas;
3. Assist in establishing current and future budgets;
4. Better utilize existing resources and infrastructure;
5. Support management and administrative functions;
6. and Establish collaborative efficiencies

To the extent that partnering allows, the respective areas of management must be worked out in an equitable arrangement to distribute both the administrative and maintenance responsibilities in a practical manner. Agreements should further address impacts of change and organizational structure that may require restating or recalculating the cost sharing formula.

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CHAPTER VIII

RECOMMENDATIONS

Introduction:

The following recommendations to the study partners, and reasoning behind them, are prioritized in order from most desirable to least desirable scenario. The recommendations were derived from a study partner's perspective of the shared services initiative, and the way in which the study group would benefit as a group. Subsequently these recommendations, and the priorities listed, are the opinion of Main Street Connections and do not suggest in any way the opinion of the Greater Portland Council of Governments (GPCOG), South Portland Bus Service (SPBS), Shuttlebus-ZOOM, the Regional Transportation Program (RTP), or the York County Community Action Corporation (YCCAC). These recommendations are intended to offer guidance in the decision making process of future collaborations of the study partners herein.

Prioritizing methodology takes into account the current downsizing trend of federal, state, and local governments; uncertainty of future funding availability; mobility needs projected to increase due to an aging population; and budget constraints.

Increasing mobility needs versus decreasing government spending suggests a stress limit is soon to be reached, and a viable solution to provide needed service while decreasing costs will need to be implemented. Consequently, this pending increase in mobility needs with a government downsizing trend may leave many individuals with limited solutions to basic transportation needs including access to work, medical appointments, and shopping. However, a common theme among the study partners is the need to transport clients to where they need to go. As a result of this commonality, the tools needed to begin to address these issues are "Communication", "Coordination", Collaboration", and "Consolidation" and the study partners have begun, to varying levels, building the relationships needed that can lead to more efficient use of services, resources and infrastructure.

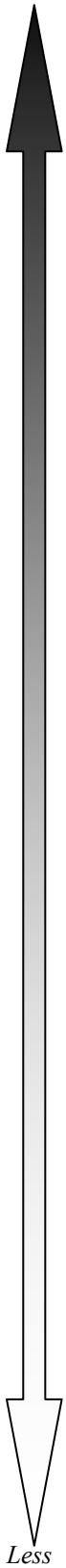
Prioritization and Reasoning:

There are four (4) directions the study partners can go:

A. New Construction
B. Rental or Lease
C. Outsource Maintenance (Scarborough Model)
D. Maintain Status Quo

Below, by order of most desirable to least desirable, is our interpretation and recommendations for the preferred direction the study partners may consider moving in, followed by the reasoning behind each recommendation.

More Desirable



Less Desirable

Priority 1 - New Construction

Reasoning:

- Ownership more advantageous than having a monthly rent or lease;
- Opportunity may exist to offset local match with in-kind contributions;
- Expectations are that baby boomers will push mobility needs to new heights, so planning for capacity and land needs now rather than later makes sense;
- Coordinating with like mission related partners can offer further efficiencies in technology and route design down the road;
- Rising maintenance costs are causing financial concerns; therefore, if a decision is made to address these costs with coordinated solutions, then it doesn't make fiscal sense to replace those potential savings with rent or lease;
- Decision making in study partners control not a renter or leaser;
- Expectations are that mobility needs will be around for a while, so concerns about long term commitments to FTA fixed assets would not be high on our list as a deterrent.

Priority 2 – Outsource (Scarborough Option)

Reasoning:

- This offers an opportunity of not leasing a building that would add to current costs, this is due to off-setting cost increase with less maintenance staff;
- This alternative keeps options open for New Construction if local match concerns ease;
- Potential for transit partnering with the Town of Scarborough now or down the road;
- Less obligations in a maintenance agreement and easier to get out of should better options come to light.

Priority 3 – Maintain Status Quo

Reasoning:

- Equipment improvements on the horizon will offer some financial relief;
- Other non-consolidation efficiencies have been identified in the study that can further cost savings;
- If New Construction is off the table, then rent or lease costs would be counterproductive to any costs savings realized;
- The preference not to get locked into a rent/lease agreement if options for construction open up in the near future makes this priority rational;
- With two facilities already owned the study partners have the luxury of not jumping into something they may regret.

Priority 4 – Rental or Lease Agreement

Reasoning:

- Only if there is a requirement to leave current locations would this be considered an option of choice;
- Expected retro-fitting costs, increased cost of a monthly rent or lease, and long term agreement makes this option even less attractive;
- There are always places for rent so this option will be around should it become absolutely necessary in coming months or years, therefore, it is not a decision that has to be made now with other more desirable options on the table.

Pros and Cons:

New Construction

PROS	CONS
Ownership and more control of building use and future expansions	Large initial expense ("Local Match")
One-Time "Local Match" versus On-going Rental/Lease Agreement	Commitment to FTA in fixed assets
Potential for In-Kind as a "Local Match off-set.	

Scarborough Option

PROS	CONS
Low start-up costs versus large initial expense of a "Local Match".	On-going Maintenance Agreement versus the luxury of dealing with a One-Time "Local Match"
No fixed asset commitment to FTA	Subject to final decisions on future changes and/or modifications needed in the hands of the Town of Scarborough
Potential cost sharing arrangements with Town in trade for any local transit needs.	Potential employee layoffs
	Possible Retro-Fitting Costs
	Still in current buildings with financial needs.

Maintain Status Quo and find Cost Savings through other means of collaborate

PROS	CONS
Lowest start-up costs versus large initial expense of a "Local Match" or On-Going Lease/Rent Agreement.	Space constraints still exist
No fixed asset commitment to FTA	Facilities still aging and costly
Offers the luxury of time to properly assess and not jump into an arrangement that may not be in anyone's best interest.	

Rental/Lease

PROS	CONS
Low start-up costs versus large initial expense of a "Local Match".	On-going Rental/Lease Agreement versus the luxury of dealing with a One-Time "Local Match"
No fixed asset commitment to FTA	Subject to final decisions on future changes and/or modifications needed in the hands of the renter or leaser
	Retro-Fitting Costs

Conclusion:

New Construction would be our preferred direction and what we consider to be the most desirable course of action. This direction allows us to meet community ridership needs, while building a sustainable transportation program, equipped to handle current and future public and human service transportation needs. It further offers fiscally responsible use of resources and infrastructure while uniting management and funding in a transparent and accountable manner.

This approach can ease the difficulties of coordination because of the unity it provides, and at the same time builds for the future around ownership rather than as a tenant.

With expectation being that of decreasing government and increasing transportation needs, we feel the two major drawbacks of "New Construction" (local match requirement & long term commitment to the FTA) are low risk as the need to find ways to move people around is growing, not shrinking, and therefore greatly outweighs these risks.

Delaying a decision to come together and find common benefits is only putting off the inevitable decision of coordinating to survive. Therefore, it is our recommendation to the study committee that the "New Construction" option provides the best opportunity to meet your agency missions, control expenses, and build sustainable programs to best meet the needs of the your clients, and the transit public, now and into the future.

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PROJECT SUMMARY

Project Summary

Creating a model for providing shared maintenance services can be a successful strategy for achieving considerable savings across a wide variety of processes. Agencies are facing a constant increase in operating costs, yet their revenue and subsidies in support of operating services continue to decline. Aging equipment and staff shortages are further compounding the situation by causing prioritization of work, inconsistent service levels, increased outsourcing, and staff redirection.

Progress has been made in the delivery of maintenance services as a result of a willingness of existing staff to share in the burden that increased maintenance needs are placing on all agencies, however there is significant room for improvement and the need for cost reduction and identifying maintenance efficiencies continue to be the primary reasons for seeking a shared services strategy.

In a shared services model organizational redundancies can be consolidated. The shared service environment can be streamlined, maintenance staffing and work assignments can be structured by delegating work to those with appropriate skill sets, and management and administrative functions can concentrate on oversight, service delivery and support, all of which can reduce costs.

Shared services offer viable fiscal advantage to agencies, improves customer relations, and helps them reach their strategic and financial goals. A strong implementation outline and a phased approach for recommended improvements can help agencies meet their goals in a timely manner. Transit agencies have always recognized the benefits related to a shared service environment, but only recently have begun quantifying those benefits. The importance of strong local support cannot be stressed enough and a convincing business plan is the first step in gaining that support.

As more agencies move in a direction of coordination and shared service environments, employing best practices will lead the way to maintaining and achieving additional cost savings and other value-added improvements. A monitoring structure should be established to realize best practices with established performance indicators and benchmarks for review.

Key Findings of Study:
The primary motivations for the study remain to be a need for cost reduction and improved efficiency of maintenance service delivery. A modest look at dispatch practices was also reviewed during the process. These motivations are validated with the key finding listed below:

- Aging facilities and expansion constraints;
- Growing costs associated with daily vehicle maintenance;
- Elevated fleet costs largely due to majority of fleets at or beyond their useful life;
- Daily mechanical breakdowns;
- Carrying of excessive fleets to cover increased breakdowns;
- Equipment unreliability elevates passenger safety concerns;
- Technology, skill set and training varies among operators;
- Increased outsourcing of routine maintenance work;
- Interest in a consolidated location offers both opportunities and concerns;
- Inadequate federal, state and local resources ;
- Limiting purchasing opportunities beyond State contract;
- Varying, and in some cases, outdate dispatch and scheduling technologies.

Potential Benefits Identified:

Potential benefits identified by transitioning from a decentralized environment to a shared services environment include: cost benefits, staff benefits, and other benefits, as listed below.

Cost Benefits

- Potential cost reduction in management and administrative salary, wages, and fringe dedicated to maintenance and dispatch functions;
- Potential cost reduction in mechanic and dispatch salary, wages, and fringe (smaller facility);
- Potential cost reduction in facility expenses (smaller facility only);
- Potential cost reduction in capital expenses;
- Potential cost reduction in utility expenses (smaller facility only);
- Potential cost reduction in parts and supplies;
- Potential cost reduction in contracted services;
- Potential cost reduction in offering vehicle staging locations.

Staffing Benefits

- Potential re-direction of management and administrative staff away from maintenance and dispatch functions and back to their job specific duties;
- Potential to ease work overload burden on existing maintenance staff.

Other Benefits

- Potential for a Streamlined Preventative Maintenance Program;
- Potential standardization of Parts, Supplies, and Equipment;
- Potential for increased in-house maintenance and less outsourcing;
- Potential for shared technologies.

Key Investments:

There were several key projects identified that may prove beneficial in achieving the efficiencies that can result in cost savings. Many of these projects would require an initial investment in infrastructure whose return on investment may take up to several years to recover. Among those identified are listed below.

- Construct, rent or lease a centralized facility to coordinated maintenance services from. This would initially require one or more of the following costs: federally required local match, rental/lease agreement and deposits, retrofitting costs (if applicable), and any costs associated with office equipment and furniture;
- Retain existing facilities, as deemed suitable, for use as vehicle staging locations. This would require at minimum a commitment to ongoing expenses for utilities, basic facility maintenance, and minimal staffing at times;
- Purchase of robust technologies offering state of the art functionality in maintenance and dispatch software for use in a shared environment.

While initial investments require local support and availability of resources, operating in a centralized environment fosters a stronger command of the environment, typically resulting in lower costs and increased efficiencies of service delivery.

Local Support and Change Management

Two critical factors for implementing a shared use environment is the level of "Local Support" for such an initiative and "Change Management" (transitioning effects).

- *Local Support* – includes at minimum executive management, community, business, project stakeholders and funding partners. Indications are that local awareness and understanding of the need for continuing mobility solutions for their respective communities is strong. Recent cost increases over the last several years has elevated that local support to encourage the discovery of cost saving solutions such as shared service alternatives.

- *Change Management* – is the structured approach to transitioning individuals, groups, and organizations from a current state to a desired future state. Change management should be integrated from the beginning of the project. Generally changes are formally introduced and approved. Indications are that current agencies have an understanding of these implications and can work together in an amicable way to achieve their goals.

Conclusion

Shared service models are proving to offer industry opportunities for significant cost savings, and a chance to embrace best practices from a shared environment standpoint that can achieve additional cost savings and other value-added enhancements. Establishing local support and resources, the development of goals and benchmarks, and building a transitioning plan before hand will strengthen the possibilities of a successful implementation.

As agencies look towards the future, the evolution towards shared services is becoming more and more prevalent for cost sharing and strategic reasons. The increasing number of agencies finding that shared services permit them to achieve valuable benefits, improve acquisition opportunities, and improve customer service is a clear trend of the economic reality of our time.

In the end the goal of the four study partners managing their respective programs should be to offer their government programs an opportunity to be sustainable through more efficient use of resources and infrastructure that allows them to provide the same or increased levels of services at a lower cost of doing business.

Appendix

Resources

- Federal Transit Administration - http://www.fta.dot.gov/
- Federal Transit Administration - Circular 9030.1D (Urbanized Area Program)
- Federal Transit Administration - Circular 9050.1F (Non-Urbanized Area Program)
- Federal Transit Administration - Circular 4220.1F (Third Party Contracting)
- Transit Cooperative Research Program (TCRP) Report 109
- Transit Cooperative Research Program (TCRP) Synthesis 22
- MaineDOT, http://www.maine.gov/mdot/
- Greater Portland Council of Governments (GPCOG) - http://www.gpcog.org/home/index.php
- South Portland Bus Service (SPBS) - http://www.southportland.org
- Regional Transportation Program (RTP) - http://www.rtprides.org/
- ShuttleBus-ZOOM - http://www.shuttlebus-zoom.com/
- York County Community Action Corporation (YCCAC) - http://www.yccac.org/
- Greater Portland METRO - http://www.gpmetrobus.com/
- MaineDOT Region 6 –Biennial Operations Plan
- MaineDOT Region 8 –Biennial Operations Plan
- City of South Portland Annual Report for Fiscal Year 2009/2010
- City of South Portland Expenses and Revenue FY07-FY11
- City of South Portland Bus Dept Organization Chart
- City of South Portland, Maine – Vehicle Identification List
- City of South Portland, Strategic Planning Buildings Jan 08.doc
- CitiTech Systems, Inc. - http://www.cititech.com/
- FileMaker Pro - http://www.filemaker.com/
- RTA Fleet Tracking Systems - http://www.rtafleet.com/transit.html
- South Portland/Saco Bay Transit Study
- Portland Peninsula Transit Study
- MaineDOT - Over_100UsefulLife_MilesOrYearsOrCondition report
- PACTS Regional Transit Coordination Study
- PACTS Regional Transit Coordination Study, Executive Summary
- Trans & Waterfront Dept Annual Report FY10 Jan 10
- York County Community Action Corporation- Vehicle Evaluation Summary
- Town of Scarborough, Maine - http://www.scarborough.me.us/
- Town of Scarborough DPW - http://www.scarborough.me.us/dpw/index.html
- Motorola - http://www.motorola.com/us
- Stratagen - http://www.stratagen.com/
- Marathon Technical Services - Flexible Fuel Design
- U.S. Department of Energy - Natural Gas Buses: Separating Myth from Fact
- NFPA 52: Vehicular Gaseous Fuel Systems Code
- Tompkins Consolidated Area Transit, Inc - http://www.tcatbus.com/
- City of Rochester, Minnesota - http://www.rochestermn.gov/default.aspx
- City of Rochester Fleet Maintenance Facility Planning and Consolidation Evaluation
- Los Angeles County Metropolitan Transportation Authority (Metro) - http://www.metro.net/
- The Dunham Group http://www.dunham-group.com
- Showcase.com Commercial real Estate - http://www.showcase.com/
- Malone Commercial - http://www.malonecb.com/pdf/2009_Office_Ind_Mkt_Survey.pdf
- The Boulos Company - http://www.cbre.com/EN/Pages/default.aspx
- LoopNet - http://www.loopnet.com/